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COMMONWEALTH OF MASSACHUSETTS

NORFOLK, SS.

SUPERIOR COURT DEPARTMENT
OF THE TRIAL COURT

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COMMONWEALTH OF MASSACHUSETTS,

v.

KAREN READ.

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* Docket No. 2282CR00117

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TESTIMONY OF JESSICA HYDE
BEFORE THE HONORABLE BEVERLY CANNONE
WEDNESDAY, MAY 9, 2025

APPEARANCES:

For the Commonwealth:

BY: HANK BRENNAN, A.D.A.
ADAM LALLY, A.D.A.
LAURA MCLAUGHLIN, A.D.A.

For the defendant:

BY: DAVID YANNETTI, ESQ.
ALAN JACKSON, ESQ.
ELIZABETH LITTLE, ESQ.
ROBERT ALESSI, ESQ.

In attendance: Sophie Johnson

Dedham, Massachusetts

Christine D. Blankenship, CVR
Court Reporter/Transcriber

I N D E X

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1 (Court in session at 11:19 a.m.)

2 (Defendant is present with counsel.)

3 THE COURT: I appreciate the time. I appreciate
4 people's patience.

5 So in reviewing the rules, I look at Rule 2. So Mass.
6 Rules Criminal Procedure, Rule 2 - purpose and
7 construction.

8 And so upon reflection and consideration, it says,
9 "These rules are intended to provide for the just
10 determination of every criminal proceeding. They shall be
11 construed to secure simplicity and procedure, fairness in
12 administration, and the elimination of expense and delay."

13 Also looking to *Commonwealth vs. Durand*. I don't have
14 the cite. I know it's from 2016/2017. Judge Robert Kane
15 was the trial judge. So because none of the purposes here
16 in Rule 2 are served by the admission of the Maryland trial
17 judge's decision, particularly were offered without notice
18 to the Court previously, I'm excluding that decision. Your
19 rights are saved, Mr. Alessi. We've got that decision
20 marked for identification, and you certainly are free to
21 cross-examine Ms. Hyde regarding her methodology. So
22 that's my decision.

23 So bring the jurors in, please.

24 (Jury in.)

1 THE COURT: Jurors, I appreciate your patience. So
2 your next witness, Mr. Brennan.

3 MR. BRENNAN: The Commonwealth calls Jessica Hyde.

4 JESSICA HYDE, sworn

5 THE COURT: Good morning.

6 THE WITNESS: Good morning. Good morning, Your Honor.

7 THE COURT: All right. Mr. Brennan, whenever you're
8 ready.

9 MR. BRENNAN: Thank you.

10 **DIRECT EXAMINATION**

11 **BY MR. BRENNAN:**

12 Q Good afternoon.

13 A Good afternoon.

14 Q Could you please introduce yourself to the jury and
15 spell your last name for the record?

16 A My name is Jessica Hyde, J-E-S-S-I-C-A space H-Y-D-E.

17 Q What do you do for a living?

18 A I'm a digital forensics examiner. I'm also an
19 associate -- I'm also an adjunct professor at George Mason
20 University where I teach mobile device forensics in the
21 graduate program. I also own a digital forensics company
22 that does training, services, and research.

23 Q In addition to teaching at Georgetown University, do
24 you teach in other ways?

1 A Correction. I teach at George Mason University, not
2 Georgetown. But thank you.

3 I also teach -- my company writes and develops training
4 courses. I teach a mobile forensic analysis course and a
5 data structures course to their law enforcement, civilians,
6 et cetera.

7 Q Do you engage in any other type of academics or
8 research?

9 A I do. I do other research as part of some the
10 volunteer activities I do in the digital forensics field.
11 So I'm the chair of DFIR review, which is a body that
12 reviews practitioner created research so that it can go
13 through peer-review. I often do reviews as a member of a
14 reviewing for Forensic Science International Digital
15 Investigations Journal, which I was a previous associate
16 editor of.

17 THE COURT REPORTER: Can you please slow down?

18 THE WITNESS: Oh, I'm so sorry.

19 Q What does peer review mean?

20 A Peer review means that when a study is done or a
21 research paper is down on a topic, that an assessment is
22 done of it. There are three types of assessments that can
23 be done. One is a methodological assessment where you read
24 through the methodology of the academic or practitioner
25 created paper and state if it is acceptable or not. The

1 second is you conduct your own testing using the same
2 methodology to conduct a peer review with your own
3 generated datasets. And the third is if the original
4 author has shared their datasets, reviewing their datasets
5 and checking that against their work.

6 Q Has of your work been peer-reviewed in the past?

7 A I've had two peer-reviewed journals. I've had an
8 article that was peer-reviewed and published in "Forensic
9 Science International Digital Investigations" regarding the
10 standardization of file classification of recovered items.
11 The layman's term of that would be talking about what
12 deleted means. And then I have another paper that's been
13 accepted that I was
14 co-author on in terms of timelines and correlations of
15 forensic evidence.

16 Q You mentioned you work in forensic data analysis.
17 Generally, what does that mean?

18 A It means that I look at evidence of digital forensics
19 devices be them mobile phones computers, Internet of
20 things, devices and do analysis to provide meaning and
21 context to the data that's recovered from them, as well as
22 performing data recovery of those same computer related
23 devices.

24 Q Do you have any specific education or training to learn
25 about forensic data?

1 A Absolutely. I have professional training both from
2 courses I've taken as well as I have a master's in digital
3 forensics from George Mason University, a master's degree
4 in that. I've taken multiple courses, advanced mobile
5 analysis, IOS forensic courses from Sans, computer forensic
6 courses from Sans. I have multiple certifications. I hold
7 the GIACGCFE which is the GIAC certified forensics
8 examiner. I also hold the NWC33CFE which is a certified
9 forensics examiner.

10 Q Do you, through your company, teach other forensic
11 examiners how to study forensic data?

12 A Correct. I teach government agencies, both federal and
13 state and local, how to do digital forensic analysis as
14 well as private sector digital forensic examiners.

15 Q How do you teach private digital forensic examiners?
16 What's the method?

17 A I've developed an online virtual course that we teach
18 virtual live, so I'm always there when I'm teaching, but I
19 also have a team of instructors. So for example, the
20 mobile forensic analysis course that I developed right now
21 this week is being taught to a police department in Texas
22 right at this moment.

23 Q Forensic data analysis seems like broad field. Are
24 there certain parts that you focus in?

1 A I personally specialize in mobile phones and Internet
2 of things devices.

3 Q I want you to just give us a very basic, very general
4 and brief background. When you're looking at a forensic
5 device and you're analyzing it, do you rely on any tools?

6 A That is a very interesting question. Reliance on tools
7 is not precisely what we do. We utilize tools to extract
8 data from a device, and then we utilize a variety of tools
9 to attempt to parse results from the device. But the
10 forensic examiner has to take the additional step to both
11 understand, validate, and provide meaning to those results.

12 Q Is there any shortcomings or dangers in simply relying
13 on a forensic tool for a result or an opinion?

14 A There is absolutely a danger in just relying on just
15 parsed results. When an algorithm is used to determine
16 what data is stored as, it doesn't tell you what that data
17 means and that's when you need a forensics examiner. Tools
18 don't necessarily understand how the data got there and
19 what causes the data to exist, and that takes deeper and
20 further human analysis as well as, you know, if you think
21 about it, if on your phone you can go to the Google play
22 store or the app store and you can actually download
23 millions of apps. There's like six million apps between
24 the two stores. Digital forensic tools maybe support
25 generally a thousand applications. So in order to be able

1 to parse and understand the data from applications that the
2 tools don't know how to support, you need a forensics
3 examiner who knows how to dig into that data, conduct
4 testing and determine the meaning of the data.

5 Q Were you asked by the Norfolk District Attorney's
6 Office to analyze a phone that was related to a person by
7 the name of Jennifer McCabe?

8 A Yes, with a very, very specific scope to a specific
9 date range.

10 Q Were you asked during that scope and date range to
11 analyze it and provide an opinion about whether there were
12 any user initiated deletions of any web searches or Safari
13 type searches? A Yes, I was asked to look for deletions of
14 Safari searches within the scope of the time frame that was
15 dictated by the purpose for the exam.

16 Q Were you asked to look at the phone device and
17 determine whether or not there were any user initiated
18 deletions of phone calls on the device?

19 A Yes, I was asked to look for deletions of phone calls
20 in that same date range.

21 Q And did you do both of those tasks?

22 A Yes, that's correct.

23 Q Did you ultimately have opinions on both of those
24 issues?

1 A I do have opinions on both of those issues. That's
2 correct.

3 Q And engaging in the efforts to answer those two
4 questions, did you necessarily have to review and analyze a
5 web history that included searches on January 29, 2022 at
6 2:27 a.m.?

7 A I did analyze web searches that occurred at 2:29 a.m.
8 in local time here in Norfolk on January 29, 2022, from the
9 device I was provided, yes. Not the device -- a forensic
10 image for clarity.

11 Q So before we get to the two opinions that you were
12 asked to consider or what your opinions were after
13 analyzing the data, I want to begin by giving the
14 background and having you share with us your analysis and
15 your observations and opinions about the search on Safari
16 relative to this 2:27 time frame.

17 Before we begin that, let me just ask you one question.
18 Did you do anything to ensure the integrity of the data
19 that you were looking at?

20 A Upon receiving the forensic image, the first thing I
21 did was I did what's called a hash of the image. So a hash
22 is an algorithmic representation of a file. So a forensic
23 image, all the data from the phone, it comes in one file
24 that can then be extracted and have the rest of the data.
25 That singular file that's received, there's actually three,

1 but focusing on the one that has all of the data, that
2 archived file, you can run what's called a hash algorithm
3 against it. There's actually multiple hash algorithms.
4 And I hashed it and then I validated that hash to the
5 document that was provided along with the image file the
6 contained hashes that were contained in. Those hash values
7 matched.

8 Now, just for clarity if you change one bit in a file,
9 it will not have the same hash. So the hash provides
10 integrity and having used both hashes, which are available
11 in that report and ran two different algorithms, they both
12 matched.

13 Additionally, I reviewed the PDF that was received for
14 signs of alteration. The PDF that comes with a Grey Key
15 report is not signed by Adobe Acrobat; however, I was able
16 take that PDF and then examine it just like I would a
17 phone. So I'm using the same techniques on the phone.

18 Using the tool called Exif tool, I was able to learn
19 about the creation of that particular PDF, and what I was
20 able to learn about it was that it was created by -- it's
21 labeled it as being produced by Grayshift using a
22 particular code based application to create the PDF called
23 PYF PDF standing for Python framework PDF. It is on --
24 it's a program that you can download and developers who
25 create tools, like Magnet Forensics who owns Gray Key,

1 utilizes that script, which is why it says it's produced by
2 it, to create the actual PDF. That's what the evidence
3 there in the data tells me.

4 It also contains a time of when that is created, and
5 that time was February 2, 2022 at global UTC, that's the
6 global concept time - think what's in the UK - at 2249,
7 which local time would be 5:49 p.m. So that says that it
8 was created approximately two hours and forty-five minutes
9 after the document said the image started and it correlated
10 with the document information. So that provided some level
11 of certainty that that document was factual. And on top of
12 that, I further opened the file of that PDF in what's
13 called a hex editor which lets me see, like, every bite,
14 everyone and zero, and from doing that, I looked for tag
15 markers that are made sometimes in some modifications of
16 PDFs called XMPs, which is Adobe's format of mark up, and I
17 did not find any evidence of those tags.

18 Q When you're trying to determine whether there's
19 integrity in the data, are you able to tell whether or not
20 there has been any alterations or tampering before the item
21 is put on the Grey Key machine to make the extraction?

22 A That would be -- when you're talking about if the
23 physical device had been manipulated; is that correct?

24 Q Yes.

1 A I cannot tell if the physical device has been
2 manipulated prior to it being imaged. I can only validate
3 if the image was correct. In theory, all of the data of
4 any -- anything that you did on that device would still
5 show in the evidence of device logs and whatever locations
6 that were touched or communicated with, but at that point,
7 it's the same as any user interacting with the device
8 itself.

9 Q After the phone's extracted or at the time it's
10 extracted, does it have the history of the device on that
11 extraction?

12 A Could you rephrase?

13 Q Yes. At the time the phone is extracted and a copy is
14 made and a PDF and a digital copy, does the digital copy
15 and the PDF contain the history of searches and calls and
16 other items on that phone?

17 A The forensic image itself contains a variety of
18 different artifacts or traces that are left behind by
19 activities that a user does on a phone, yes.

20 Q You use the term artifact. What does that mean in a
21 basic sense?

22 A An artifact is any type of evidence that is left behind
23 on your phone of an action. So, for example, if you
24 receive a call, there are multiple places in the phone that
25 show that a call was received. That can be in the call

1 log, that could be in a notification, that could be in a
2 unified log that tracks the activity that the phone is
3 doing. There's multiple locations. And each one of those
4 residue of the fact that the call came in, that's what I
5 would refer to as an artifact. So you could have an
6 artifact not just about a call, about a web search, about
7 taking a photo, any action you take on your phone may
8 create an artifact.

9 Q Before we get into those two questions about any
10 alleged deletions from Safari or Google search or Internet
11 search and any alleged deletions of phone calls, I want to
12 start with your explanation or your sharing how the time
13 stamp works relative to search beginning at 2:27 a.m. on
14 January 29, 2022.

15 A So for clarity, there's more than one search that
16 happens actually at 2:27. There is some activity that's
17 looking at -- and I don't want to mispronounce the name of
18 the town. I'll try Hockomock sports. Looking at
19 activities for the sporting events at that school system I
20 assume or county location. There is a time stamp for the
21 search, "hos long to die in cold," however, that time stamp
22 isn't about active searches, it's about the time that a tab
23 was either opened or moved to the background.

24 So "hos long to die in cold," is the most current
25 search in the tab that you open at -- that was opened at

1 2:27. So if you're using your phone, and you go to your
2 browser, you have some choices. You can just open an
3 existing tab or you can open a new tab. A new tab was
4 opened at 2:27 a.m., and that search was done there.

5 Another tab actually at 2:27 was moved to the
6 background and its last search at the time it was moved to
7 the background was for, I believe "It's Raining Men" the
8 YouTube video. So those two searches both exist as what's
9 called browser state searches. But that browser state
10 isn't about the time that it was searched. It's about the
11 time that the browser tab that you opened either went to
12 the background or if it's never been moved to the
13 background, the current search. So the time in the
14 instance of "It's Raining Men" that video is the time that
15 that video was moved to the background and the new tab took
16 over as the tab that's active, and that tab, the last
17 search done in that tab, is "hos long to die in cold"
18 because that database holds the current search, it
19 constantly gets updated, and the time that the tab was
20 either opened if it's the first time it's opened or moved
21 to the background if it's an existing tab.

22 Q Did you prepare exhibit that would help explain --

23 A I did. I did put it together in an exhibit that would
24 show that.

25 MR. BRENNAN: May I approach?

1 THE COURT: Yes.

2 Q Handing you a piece of paper; do you recognize that?

3 A I do. This is table one from the first report I
4 created on this case on the phone that I was told was for
5 Jen McCabe.

6 Q Is that the -- will that help you explain?

7 A It will.

8 MR. BRENNAN: I'd move this into evidence.

9 MR. ALESSI: Can we approach, Your Honor? I'm going to
10 object if you want --

11 THE COURT: You can come on up.

12 (Sidebar commences:

13 MR. BRENNAN: It should be just the front page; it
14 shouldn't be the back page.

15 MR. ALESSI: That's part of the objection.

16 MR. BRENNAN: I did not see that.

17 MR. ALESSI: It's okay.

18 MR. BRENNAN: It's just the front page.

19 MR. ALESSI: Your Honor, I've already just covered the
20 first. It was more of a mechanical issue. The reason why
21 I'm objecting is because this is assuming the opinion
22 before the opinion is being given, so we would in effect be
23 publishing a document -- it would be admitted with the
24 opinion in it. The foundation has not been laid for the
25 opinion --

1 THE COURT: Okay.

2 MR. ALESSI: -- as to what is happening with this time
3 stamp, whether it is attributable to a search at a certain
4 time. I have other bases, but that's the key basis.

5 MR. BRENNAN: If I could use it as a chalk, and then
6 after she gives her opinion, I'll move it as an exhibit.

7 MR. ALESSI: I'm fine with that as long as she's not
8 giving opinions talking about that document.

9 MR. BRENNAN: She's going to give opinions.

10 MR. ALESSI: Then I'm going have to object to that
11 going on any publication.

12 THE COURT: So we will mark it for identification. You
13 can use it with her, but the jury can't see it until she
14 offers her opinion.

15 MR. BRENNAN: She'll just get right to the opinion then
16 and then I'll introduce it.

17 MR. ALESSI: And then I'll object. You tell me how you
18 want to do it, Your Honor. I'm going to be objecting. I
19 don't --

20 THE COURT: And what's the basis of the objection?

21 MR. ALESSI: The basis for the objection is there's no
22 foundation has been laid for the opinion that's -- that are
23 being expressed in here. All that's happening is she's
24 testified what she has done, but she hasn't -- he hasn't --
25 Mr. Brennan hasn't established a foundation for that to go

1 in. He hasn't established the foundation for her opinion,
2 which I would object to. So just my last point by way of
3 example. If we don't even have this document, and Mr.
4 Brennan was going to ask her questions about the opinions
5 in here, I would be objecting. I know I can't give the
6 reason, but the reason would be because not a proper
7 foundation. So what Mr. Brennan would effectively be doing
8 here is trying to get this into evidence, try to show it
9 which contains the opinions, and that is something that
10 can't be done until he's established the foundation.
11 Bottom-line, her opinion is embedded in this. When she
12 just talks about, even if it's marked, he can't use this
13 document as her opinion without her opinion being
14 established.

15 THE COURT: So what is the opinion that you intend to
16 offer now? Speak into the microphone.

17 MR. BRENNAN: If I was going to offer an opinion before
18 going through establishing it is that the time stamp of
19 2:27 is for Hockomock sports, and that the reason why this
20 appears in this graph like this is because that is the last
21 search term. She would then explain how she determined
22 that. She determined that by looking at the different
23 databases in the right-hand column, and from looking at
24 those artifacts and those columns, she can tell, in her
25 opinion, this was an open Safari tab at 2:27. There's a

1 number of searches throughout the morning. And the last
2 search is "hos long to die in cold" it contains the
3 original time stamp because that tab time stamp doesn't
4 change or get marked until it's closed. And so what the
5 defense has asked me to do is to go through this entire
6 thing and then after she gives her opinion, then I put it
7 on and then we go through the entire same thing again in
8 front of the jury, so we do it twice. It doesn't make a
9 lot of sense. It makes more sense to use this as a chalk
10 after she establishes her opinion. If he sustains the
11 objection, then it should be admitted. Otherwise, it's not
12 an exhibit.

13 THE COURT: So she just explained it. Right. And so
14 you think it needs be more of a --

15 MR. ALESSI: Oh, yes.

16 THE COURT: -- foundation?

17 MR. ALESSI: Because, Your Honor, Mr. Brennan is
18 correct that the subject matter, you may recall Mr. Whiffin
19 I went over this with him --

20 THE COURT: Right.

21 MR. ALESSI: -- and he said this is my opinion as to
22 what Mr. Brennan just said as to what tab is associated
23 with and what time it's associated. He said it's his
24 opinion.

1 Ms. Hyde, in essence, this is going to be used as her
2 opinion that's going to appear on the screen that the jury
3 is going to see before he's established the foundation.

4 THE COURT: All right. So you're suggesting that when
5 Mr. Brennan said the way that you're suggesting is it's
6 twice. He has her testify to this and then puts it up.

7 MR. ALESSI: If he establishes a proper foundation,
8 then this can go up on the screen and he can explain it
9 subject to Your Honor's --

10 THE COURT: All right. So if you have to do it twice,
11 you have to do it twice.

12 MR. BRENNAN: Okay. Thank you.

13 end of sidebar.)

14 Q Before we look at any chalk, I want you to explain the
15 entire basis for that chalk and your ultimate opinions that
16 are reflected in the chalk. So let's start from the
17 beginning.

18 A May I look at my copy of the chart or no?

19 Q Why don't --

20 THE WITNESS: Your Honor, may I?

21 THE COURT: See if you can answer the questions, and if
22 you can't, let us know.

23 THE WITNESS: Yes, Your Honor.

1 Q When you looked at the phone to analyze it, were you
2 trying to determine when a particular search was made,
3 specifically the search "hos long to die in cold"?

4 A Correct. I was looking for two searches both "how long
5 to die in cikd" and "hos long to die at cold".

6 Q So as a forensic examiner, how did you begin the
7 process to try to identify and determine when that search
8 was actually made?

9 A So the first thing we would want to identify is what
10 application was being used at the time to make the search.
11 So looking at that date and time stamp was able to on that
12 date be able to determine that Safari was the application
13 that was being used as the Google browser, and then you
14 would begin looking at the artifacts for Safari, both those
15 that are parsed by different forensic tools, but then
16 further looking into the data structures that hold that
17 data itself. And then ultimately, conducting testing to
18 determine why a certain artifact exists.

19 Q So you mentioned you begin; the beginning step is the
20 forensic tool or tools. Did you use forensic tools to get
21 information to parse any data regarding this potential
22 search at 2:27?

23 A Yes, I used multiple forensic tools.

24 Q Can you share with us the multiple forensic tools that
25 you used?

1 A Absolutely. I used Cellebrite physical analyzer. I
2 used Magnet Axion. I used -- just the tools I used at
3 first, I used iLeap. There are further tools I used later,
4 but those were the three that I started with.

5 Q What tools did you use later?

6 A Later, I used specifically Sanderson's forensics
7 toolkit, the forensics browser in Sanderson's toolkit which
8 helps exploit SQLite databases, and then I further reviewed
9 in a tool called Rabbit Hole.

10 Q To begin with Cellebrite, is that a tool that you're
11 familiar with?

12 A Yes.

13 Q Is it a commonly used tool in the industry?

14 A Yes, commonly used mobile forensic tool.

15 Q Is it reputable?

16 A Highly reputable.

17 Q Why did you use Cellebrite?

18 A I use Cellebrite because on any mobile exam, I'm going
19 to validate what is captured by Cellebrite and Magnet Axion
20 because they have the most robust parsing of what is in my
21 tool arsenal, and then I would also follow up with iLeap
22 closely behind because iLeap has a lot of artifacts that
23 aren't supported by either of those tools. Using a variety
24 of tools is going to give you different coverage and each

1 tool has a different perspective on how they view and
2 display data.

3 Q You said you also used Magnet Axiom?

4 A That is correct.

5 Q Is that a leading forensic tool as well?

6 A Yes, that is also a leading forensic tool.

7 Q Are you familiar with that company?

8 A I'm very familiar with Magnet Forensics. I was
9 actually their director of forensic for five years, then
10 continued to consult for them for an additional two years
11 under my company Hexordia and my company continues to be a
12 reseller of Magnet's products.

13 Q You mentioned different tools may present information
14 in is different way. Do those tools change the underlying
15 data at all?

16 A That's a great question. So when we're talking about
17 the results that a tools shows, the tools maintain the
18 integrity of that original forensic image, and it's
19 actually something we verify as we continue through our
20 exams to make sure that the underlying data hasn't been
21 changed.

22 There are tools -- I did use some other tools. I
23 apologize. I also used Artex and Mushy.

24 THE COURT REPORTER: Can you spell that?

1 THE WITNESS: I'm sorry. ArtEx is capital A lower case
2 R-T, capital E lower case X. And then Mushy is M-U-S-H-Y.

3 THE COURT REPORTER: Thank you.

4 THE WITNESS: You're welcome.

5 A I'm sorry. Could you repeat the question? I got --
6 the spelling threw me off.

7 Q I mentioned or I asked you about using multiple tools
8 and whether or not the use of different tools changes the
9 actual underlying data?

10 A Oh, so the actual underlying data is always maintained,
11 and we do validate that. Some tools allow you to see
12 parsed results and then allow you to dig deeper into
13 looking at the actual files and data structures. Those
14 would be tools like Cellebrite, Physical Analyzer and
15 Magnet Axion. Some tools show you the parsed results and
16 tell you where they got them like iLeap. It shows you the
17 parsed results and tells you the file location. And then
18 you would open that up in an external tool. And then some
19 of the tools I used are not tools that parsed the results
20 but are tools that allow me to manually look at the data
21 structures. So they directly allow me to look at the data
22 structures, and all of the tools I used in this instance
23 are tools that do not change the underlying data.

24 Q Is it important or critical to go beyond the tools'
25 presentations and actually analyze the data yourself?

1 A It is absolutely critical. Actually, in the NIS
2 Scientific Foundation's paper from the National Institute
3 of Science and Technical that states the foundations of
4 digital forensic science, it states that it is the
5 examiner's duty to not only verify and validate tool
6 results, but also to provide meaning to forensics parsed
7 results.

8 Q Does software update regularly?

9 A Oh, the software updates all the time. Typically, we
10 get an update about once a month, and to be honest it's not
11 enough to keep up with how many new apps are developed and
12 how many new phones come out and how many of your
13 applications get updates, new features, for example, maybe
14 on Instagram or Facebook. So the tools update very, very
15 regularly.

16 Q When you used the Cellebrite tool to analyze the 2:27
17 search, did the search "hos long to die in cold" have a
18 time stamp on it?

19 A There are actually multiple artifacts for "hos long to
20 die in cold". Remember earlier, we defined an artifact,
21 and we spoke about it was one of the types of traces. So
22 there are multiple choices for that "hos long to die in
23 cold". Only one of them is associated with the 2:27 time
24 stamp, but there are other instances of evidence of that
25 that was parsed by Cellebrite.

1 Q Is there any danger for an untrained eye to rely simply
2 on the software when looking at a search like this "how
3 long to die in the cold" and seeing the 2:27 time stamp?

4 A Absolutely. There's a really scary danger that an
5 examiner who has not dug into the artifact and tested to
6 see what it means may assume, erroneously, that that 2:27
7 time stamp is the time that what is there is searched. The
8 search in that field of that artifact is going to always be
9 the most recent search in the tab, but that time stamp
10 actually means either the time that that tab was
11 backgrounded, or if it's the first time the tabs been
12 opened, when it was opened. So you could erroneously
13 implicate a search was done hours or some time period or
14 even days before it actually occurred. Some of us leave
15 our tabs open forever.

16 Q In your teaching, examiners and students, do you teach
17 about this specific and concept?

18 A Yes, I teach about this concern both in my mobile
19 forensic analysis class, my mobile forensics course that I
20 teach at George Mason University in a digital forensics
21 master's program, and in the data structures course where
22 we specifically learn how to analyze these databases in
23 question.

24 Q In your experience, how common does an untrained
25 examiner make this mistake?

1 A I wouldn't be able to speak to how common an untrained
2 examiner does it, but regularly my students get those
3 questions wrong on earlier examples I give them in class to
4 kind of indicate to them that they could easily make
5 mistakes without understanding meaning, and I use it as a
6 teaching aid. So teaching, you know, 90, 100 easy students
7 a year, I regularly see that in untrained examiners that
8 I'm teaching in my class, but I wouldn't be able to see
9 that cross the discipline.

10 Q You mentioned that Cellebrite showed the search on the
11 report as "hos long to die in cold" with a time stamp of
12 2:27, was it 2:27:40?

13 A Yes, that's correct.

14 Q Do you know whether or not Cellebrite has updated its
15 software?

16 A In May, Cellebrite -- of last year, Cellebrite made an
17 update to their software actually to remove this artifact
18 because of its ambiguity and the risk that an examiner may
19 overstate or misstate what it is.

20 Q Is this ambiguity reflected in other types of software?

21 A Could you rephrase, please?

22 Q Sure. For example, when you did a report in Axiom, did
23 a tab similar reflection in the report?

24 MR. ALESSI: Objection, Your Honor.

25 THE COURT: Ask it differently.

1 Q Did you run a report regarding this time frame through
2 Axiom software?

3 A I did process the image through Axiom, yes.

4 Q When you did that, was it the same or a different
5 result?

6 A Axiom and Cellebrite really show their data very, very
7 differently. So Cellebrite takes a perspective of alerting
8 people to possible deletions by annotating either a
9 question mark or a red X next to artifacts that come from
10 different areas. Magnet instead marks if the artifact was
11 parsed or carved. I feel like now I need to explain to you
12 parsed or carved.

13 So parsed means that the data was where it was expected
14 to be found, and the algorithm was able to cleanly see that
15 this is there. Carved means that it had to run that
16 algorithm against the data structure as a whole and found
17 it as a partial result. So carved it out, went and found
18 it, instead of just sitting there exactly where it was
19 expected to be and shows you both the results. So it will
20 show all of the results of -- in this instance, the
21 sessions -- tab sessions, but the data browser DB, the tab
22 state, it's going to instead of telling you this has a red
23 X, it will instead say it's carved. So it's a different
24 presentation of the same data.

1 Q So I want to talk about deletions in a little bit, but
2 I want to give back to the 2:27 search.

3 A Sure.

4 Q So when you produced or you looked at the report from
5 Cellebrite and it showed this time stamp as well as the
6 phrase "hos long to die in the cold", where did you look,
7 how did you make an analysis to determine whether or not
8 that search was actually made at 2:27 or another time?
9 What was your next step or process?

10 A So in looking at that time stamp, the first thing I did
11 was actually go and like at what literature exists on the
12 artifact, if anybody had reviewed this artifact before. I
13 also created my own data set and tested how we could get
14 what that time stamp means. So if I make a search in a tab
15 and then I make another search in the tab, which time stamp
16 is it. If I make a search in a tab, and I open a different
17 tab, what changes.

18 I also looked at the documentation in the artifact
19 reference guide for Axiom which does state -- it describes
20 that time stamp as the time in which the tab is
21 backgrounded, and it gives a stipulation that in certain
22 circumstances, the time stamp can be earlier than the
23 search.

1 Q Did you specifically look in any databases or for
2 artifacts in the data to help make an analysis of when the
3 search happened?

4 A Of when the search happened as a whole? Absolutely.

5 So there are multiple databases that I looked at that
6 show search information for Safari. So I looked at the P
7 list, mobile Safari P list. I looked at the browser state
8 database. I looked for the history database. I also
9 looked at the knowledge C DB. The knowledge C DB is a
10 little bit different. That isn't a database for Safari.
11 It's a database for all of Apple so it can predict your
12 behavior.

13 So it takes in information that Apple wants to take in,
14 including browser history, and it saves that information so
15 it can make predictive information.

16 I also looked at the caches in the Safari which is the
17 things that Safari is trying to make quick reference to.
18 This would include suggested terms for commonly searched
19 items.

20 Q When a URL or a search through Safari is typed in or if
21 it connects, does it leave a trace in different parts of
22 the computer or the phone?

23 A Yeah. So when you actually do any search, you're going
24 to leave traces. Now, it does depend if you are in private
25 browsing or nonprivate browsing. So nonprivate browsing is

1 what most of us use regularly. Private browsing might be
2 what you elect to use -- well, some people would elect to
3 use it if they're doing searches they wouldn't want their
4 spouse to see, like maybe they're looking at porn, or maybe
5 you're doing something secure like looking at your banking
6 information. You may intentionally use a private browser.
7 For Google users, this would be the equivalent of Incognito
8 in Google Chrome, and you may intentionally use that. And
9 so the artifacts for that are more limited than the
10 artifacts for nonprivate searches. So some of these
11 artifacts only exist for nonprivate searches, and some
12 exist for private searches.

13 Q In this case this phone, was it on nonprivate or
14 private?

15 A So the specifically the two searches we're talking
16 about "hos long to die in cold" and "how long ti die on
17 cikld," excuse me differentiation there, both of those
18 searches were done in nonprivate browsing.

19 Q So they weren't hidden?

20 A I don't understand the question, yeah.

21 MR. ALESSI: Objection, Your Honor.

22 THE COURT: Sustained.

23 Q Was there any applications on to mask those searches?

24 A Not to the best of my knowledge, I did not see any.

1 Q We began with the 2:27:40 time stamp. The next
2 recording on that tab; do you recall what time that was?

3 A I believe the next -- and I'm trying to remember the
4 chart from memory if that's correct. So I believe the next
5 thing we're looking at is the 6:23 suggestion from Apple
6 search terms for "how long to digest food"? Am I matching
7 what you're seeing on your chart?

8 Q Well, let me ask you.

9 A Okay.

10 Q When you saw that, do you look on the same tab or a
11 database? Where did you find that information?

12 Q Fair. Understood. So all of those databases I was just
13 mentioning before were looking at all the parsed results
14 from all of those, and I was looking in the entirety of the
15 scope from the time of midnight until noon. That was the
16 time frame of my scope of all of the content that was done
17 in the tabs -- the tabs for browser state DB, cloud tabs,
18 artifacts, history DB, mobile Safari P list, knowledge C,
19 each one of those, and then I was combining them to
20 timeline out the activity.

21 Q At 6:23:51, did you look into how long t-i d-i-e in
22 c-i-k-d?

23 A So that would be the next thing that we see after the
24 -- after the Apple suggested term of "how long to digest

1 food," that's the next thing we see is we see an entry of
2 that.

3 There's two immediately next to each other. I don't
4 remember the precision on the seconds of which one is first
5 off the top of my head, but one is a knowledge C and one is
6 in the mobile Safari P list.

7 Q Can they appear in different rooms in the databank in
8 different places?

9 A Yeah. Searches appear in many different places. They
10 can leave traces such as that knowledge C DB. I love that
11 Apple calls that knowledge. It's like what it's trying to
12 learn. So that knowledge C DB, what Apple is trying to
13 learn about you, as well as in that mobile Safari P list,
14 as well as the moment of that search, which I don't have
15 the device in that moment, but just so there's
16 understanding, that open tab, the URL would have been
17 updated URL, or URL is the website would have been updated
18 to that search at that moment. Had we imaged it at the
19 moment, it would have been how long ti die in c-i-k-d -
20 c-i-k-l-d -- c-i-k-d? C-I-K-D. Sorry.

21 Q Finally, at 6:24:47, did you identify any artifacts
22 with that search that appears with the time stamp of
23 2:27:40, did you find the same?

1 A Correct. At 6:24, we have two time stamps in the same
2 two locations for "hos long to die in cold," the knowledge
3 C and the mobile Safari P list.

4 Q So based on your analysis of that issue, did you come
5 to an opinion whether or not the phrase "hos long to die in
6 cold" was actually searched at 2:27 a.m. on January 29,
7 2022?

8 A There are no artifacts --

9 MR. ALESSI: Objection, Your Honor.

10 THE COURT: So the answer yes or no.

11 A Can you repeat the question, please?

12 Q Yes. And so based on your analysis of the phone and the
13 data using all of those softwares, did you come to an
14 opinion whether or not the phrase "hos long to die in cold"
15 was searched at that time stamp tab of 2:27:40?

16 A Yes, I came to an opinion.

17 Q And what is your opinion?

18 MR. ALESSI: Objection, Your Honor.

19 THE COURT: Rephrase the question as to the opinion.

20 MR. BRENNAN: I'm sorry?

21 THE COURT: I'll see you at sidebar so, Mr. Alessi, you
22 can put this on the record.

23 MR. ALESSI: Thank you, Your Honor.

24 (Sidebar commences:

1 THE COURT: All right. Go ahead and put your objection
2 on the record.

3 MR. ALESSI: Your Honor, my objection is that there is
4 not a proper foundation laid for the opinion that's about
5 to be raised. And there are three bases for my objection
6 all coming to the fact that a proper foundation has not
7 been laid. I'm not going to guide how to do it properly,
8 but I think Your Honor knows where I'm going.

9 First the basis for the objection is that she has not
10 cited one peer-reviewed article for her methodology for
11 this opinion she's about to give, not one. And we all know
12 through the *Polk* factors; there's five *Polk* factors. I'm
13 not going into them. I know the Court knows them well, but
14 the bedrock focus of *Polk* as well as *Daubert-Lanigan* is you
15 to have either find that the methodology is generally
16 accepted - that's *Commonwealth v. Davis* - or you have to
17 establish the five factors under *Polk*, and there's not even
18 been -- begun to do that. But most important on the ones
19 that haven't, there's no peer-reviewing. She has also not
20 demonstrated that her methodology that she has subjected it
21 to testing or replication, which is another requirement
22 that you have to have.

23 So what she has basically done here is what is commonly
24 referred to in *Daubert* parlances, and it's -- because she
25 says this is so way you do it, it must be so.

1 The third basis for my objection, Your Honor, is that
2 the methodology that she is attempting to use is not
3 properly tethered to the facts which is a *Polk* fact, and it
4 is also a *Daubert* factor. She is not tethering her opinion
5 to the facts of this particular situation.

6 So in conclusion, a proper foundation has not been
7 laid, and additionally, Mr. Brennan, respectfully, has not
8 asked the question properly with regard to how you elicit
9 an opinion, and I'm not going to go into it further and
10 give him the roadmap to do it.

11 THE COURT: What do you say, Mr. Brennan?

12 MR. BRENNAN: I can her if she has an opinion to a
13 reasonable degree of scientific certainty. She does not
14 need to have a peer review to make this admissible. She
15 can have the training and experience and she's done the
16 study. There is no requirement that the defense suggests.
17 There is no methodology that's at failure here. I can ask
18 her to self-endorse, as you can any expert, is this the
19 methodology that is currently accepted, but peer review is
20 not a prerequisite. She's established her foundation and
21 her experience.

22 MR. ALESSI: If I may, Your Honor.

23 THE COURT: Okay.

24 MR. ALESSI: There are two bases to establish the basis
25 for foundation for an opinion of an expert. The first, as

1 I stated moments ago, is general acceptance. She has not
2 given one statement as to how her methodology is generally
3 accepted in the scientific community. The only thing she
4 has said, is this is how I do it. She hasn't said, this is
5 how it's accepted in my scientific community. It's
6 general. You can cite this article. She has not done
7 that. So the foundation for general acceptance has not
8 been established.

9 One can, if you can establish general acceptance, you
10 can do it under the five *Daubert* factors, but the five
11 *Daubert* factors include -- one of them is peer review in
12 publication. Another one is general acceptance. I already
13 covered that. The other one is that there's a standard or
14 a regulation that she can point to as to how she's coming
15 to this conclusion that you tether the 2:27 time stamp to a
16 search occurring at 6:23. She has given not one
17 publication, not one standard to tether it to. She has
18 failed every one of the *Daubert-Lanigan* factors, and she's
19 fielded the general acceptance of *Commonwealth v. Davis* and
20 that is the basis for my objection.

21 THE COURT: So she's testified to using the Cellebrite
22 tool that is in evidence through Dr. Whiffin or Mr.
23 Whiffin, and she testified as to using that. And I believe
24 earlier she testified to that being -- when she talked
25 about the various forensic tools that she used and that

1 they're used in the industry and that they're generally
2 accepted without using a general acceptance language.

3 MR. ALESSI: Your Honor, that is what she has testified
4 to, however, this is the big shortcoming. Yes, she's
5 testified that she used Cellebrite tools, and frankly she
6 testified she used other tools.

7 THE COURT: Right.

8 MR. ALESSI: She used Axiom, she used Sanderson. I get
9 all that. What she didn't do is to say that it is -- that
10 those tools can be used to determine when a search occurs.
11 Those tools only show the time stamp. So you can use any
12 one of those tools to say that that time stamp is present.
13 I have no objection to that. But the key opinion she is
14 willing to give and ready to give is that the presence of
15 that time stamp, she can then determine when the search
16 occurred. Those tools do not allow you to do that.
17 There's nothing in the literature for that.

18 So in conclusion on this, yes, you can use the tools to
19 show the time stamp, but then the next question is with a
20 shown time stamp, how do you establish that that time stamp
21 is associated to a search at a given time, and she hasn't
22 even begun to address that.

23 MR. BRENNAN: Well, she has. She's explained that the
24 artifacts leave traces in different databases. She's
25 explained that the artifacts leave traces in different

1 databases. She's explained the different databases. Also
2 on this chart are those artifacts exist, and through that,
3 that is the basis of her opinion that that time stamp
4 doesn't accurately reflect that search. So she has gone
5 through her methodology. She has gone through an
6 explanation of how she made the determination, and she has
7 given specific examples of her process and why this time
8 stamp does not apply to this search.

9 MR. ALESSI: And, Your Honor, I'm going to even -- I'm
10 going to accept for just purposes of this argument what Mr.
11 Brennan said, which is she's given a methodology to come to
12 that conclusion. The problem is the methodology that she
13 has given is not generally accepted. There's not been
14 established, and the methodology that she used has not met
15 any of the five *Daubert* factors. So even assuming that she
16 has explicated a methodology, you -- that doesn't get you
17 to an opinion. You to show that it's either generally
18 accepted or that it satisfies the five *Daubert*, and she
19 hasn't done it.

20 THE COURT: So you can ask her and we'll take it from
21 there.

22 MR. BRENNAN: Thank you.

23 MR. ALESSI: Thank you, Your Honor.

24 end of sidebar.)

1 Q You've explained to us the analysis you engaged in and
2 the process you engaged in. In forensic data analysis, is
3 there a methodology that you use, not just looking at the
4 printout of the programs, a methodology you use that is
5 accepted in the industry for experts to analyze this data
6 and come to your opinion?

7 A Absolutely. Beyond looking at what was in the tool
8 results, I further looked at those databases independently
9 and conducted testing of the artifacts.

10 Q In addition to what you did, can you share with us how
11 and why this methodology is accepted in your practice as a
12 forensic analyst?

13 A This methodology is accepted by NIST and by
14 organizations like the Scientific Working Group of Digital
15 Evidence. I'm intimately familiar as both a member of the
16 scientific working group on digital evidence who helps work
17 towards the building and development of these consensus-
18 based documents of procedures to be followed in digital
19 forensics analysis and as a member of the National
20 Institute of Science and Technology, NIST, Organizational
21 Scientific Area Committees, OSAC, Digital Evidence
22 Subcommittee where we also produce guidelines such as the
23 dataset guidelines for generation -- the guidelines for a
24 dataset generation which is how you do your actual testing
25 and creation of datasets. And I was also a part of the

1 subcommittee that drafted that. So I'm intimately familiar
2 with the accepted policies and procedures because I am also
3 a member of the groups that help author these as well as
4 review them and look and use them.

5 Q Are there articles and guidance in the industry about
6 this particular practice of analysis?

7 A For analysis, just for clarification, are you talking
8 about for analysis of Safari artifacts of mobile forensics,
9 of browser state DB, just for clarity on the question.

10 Q Let's work our way through.

11 A Sure.

12 Q How about for Safari?

13 A For Safari, there are multiple different blogs that
14 talk about Safari as well as I have analysis of Safari
15 through classes I took such as Sans 4508 which is their --
16 I'm sorry 518. Sans 4518 which is the Mac and iOS analysis
17 course, which I took.

18 Q How about the specific guidance regarding searching the
19 different databases for artifacts?

20 A In terms of methodology for digging into databases; is
21 that correct?

22 Q Yes.

23 A There are multiple -- again, I've taken courses from --
24 throughout my master's program courses on how to analyze
25 digital forensic artifacts, including mobile device

1 artifacts, throughout my GIAC certifications. I've taken
2 multiple instructor led courses on how to do these as well
3 -- specifically that cover mobile Safari history in mobile
4 forensics at GMU in a master's program, as part of the Sans
5 4518 class, and in terms of data structures, I've taken
6 study on how to analyze databases like SQLite and P list
7 are covered in those courses.

8 Q There are books on study on this methodology?

9 A There are multiple books on digital forensics, many of
10 which I've read, and including books specifically on
11 analysis of SQLite databases such as Sanderson, SQLite
12 forensics, which is probably the most authoritative because
13 not only was it written by Sanderson, who makes a tool, it
14 was tech edited by three renowned forensics examiners as
15 well as Dr. Richard Hick who created SQLite itself.

16 Q The methodology, the technique you used difficult to
17 look past the report to actually look at the data to make
18 your determination and provide your opinions, is that
19 methodology regularly accepted within the forensic data
20 community?

21 A Absolutely. Again, using the methodology from the
22 consensus-based documents from the community, from the
23 Scientific Working Group Digital Evidence on best practices
24 for analysis as well as specifically for the SQLite
25 databases I was looking at, I do that deeply verifying and

1 in accordance with the understandings from Sanderson's
2 book.

3 Q Now, you shared with us that you had an opinion
4 regarding the time stamp and whether that it was applicable
5 to the search term "hos long to die in cold"?

6 A That is correct.

7 Q Now, I wanted to ask you to a reasonable degree of
8 forensic data scientific certainty, what is your opinion
9 about whether the phrase "hos long to die in cold" was made
10 at the time of the time stamp 2:27:40?

11 MR. ALESSI: Objection, Your Honor. May we approach?

12 THE COURT: This is the last time, Mr. Alessi, on this
13 issue, okay?

14 (Sidebar commences:

15 THE COURT: The answer is going to be no. I said
16 earlier --

17 MR. ALESSI: Your Honor, you can't make that statement
18 in front of a jury. I'm sorry.

19 THE COURT: All right.

20 MR. ALESSI: You cannot make that statement in front of
21 a jury.

22 THE COURT: All right. This is the last time on this
23 issue.

1 MR. ALESSI: I'm going to Your Honor that that
2 statement -- that any of my objections never be made in
3 this trial.

4 THE COURT: Fair enough. I apologize, Mr. Alessi.

5 MR. ALESSI: Accepted. Accepted. The reason why I'm
6 objecting, Your Honor, is because all this witness did, she
7 never once said -- Mr. Brennan kept saying your
8 methodology, your methodology. He never elicited from her
9 the methodology that she is trying to use where she says
10 how I determine whether the 2:24 time stamp is tethered to
11 2:27:40 or 6:23, this is how I did it. She's explained how
12 she did it, but I'm going to go through each one quickly.

13 She basically -- her first answer when he said, "Isn't
14 it accepted in the literature," it. She said, "Dataset
15 generation." That's what she said her first answer. That's
16 not at all close to you can take a time stamp and determine
17 whether the time stamp is associated with either search
18 term.

19 The next she said. She said, "You can go to Safari and
20 you can use Sans which is a certification," what she only
21 talked to -- here is what she said. She said, "Logs for
22 Safari." She never came close to either one to say, okay,
23 here's the time stamp and that means the search occurred
24 here.

1 The third thing she said the basis for her methodology.
2 You can search for artifacts, multiple ways to do that, how
3 to analyze it. That begs the question that was her third
4 reason. Her last reason was, you can -- there's multiple
5 books on -- this is what she said multiple books on digital
6 forensics, how to analyze Sanderson SQLite which is a tool.
7 Multiple books on digital forensics has nothing to do with
8 informing how she took a time stamp and is concluding that
9 that occurred at 6:23 as opposed to 2:30.

10 So in conclusion, Your Honor, the four reasons that she
11 gave, not one time did she say time stamp you can use any
12 of these to go from a time stamp to a conclusion as to when
13 the search occurred. She hasn't moved the needle at all.

14 MR. BRENNAN: She said that the methodology is
15 regularly accepted in her industry. She gave cites to
16 different sources including NIST. She also has provided
17 specific methodology and then she is engaging in a process
18 where she's looking at different databases to see if they
19 relate to that time stamp. She has said very clearly this
20 is regularly accepted in the community. There's not much
21 more she can say. She is qualified. She has tied her
22 methodology to her process and has cited that it is
23 regularly accepted in the community.

24 MR. ALESSI: The most apt thing Mr. Brennan just said
25 was she said what her methodology is, and there's nothing

1 more she can say. I couldn't agree more. It's an -- she
2 has said this is my methodology. She did mention NIST,
3 Your Honor, and she basically -- the only thing she said
4 about NIST was it governs digital evidence. She didn't
5 even come close to saying NIST says that when you have a
6 time stamp, this is the way you go about determining when
7 the search occurred and it supports my opinion. And that's
8 the basis for the objections, Your Honor. She has not
9 cited one example of where her methodology to say that this
10 time stamp is associated with a search. She has never once
11 said where that is establish in any literature, any
12 standard, or that it's generally accepted anyplace at all.

13 THE COURT: Okay. Your objection is very well stated.
14 I'm letting the evidence in.
15 end of sidebar.)

16 THE COURT: All right. Go right ahead, Mr. Brennan.

17 Q I'm now going to ask you for your first opinion.

18 So you shared that you have an opinion about whether or
19 not that time stamp 2:27:40 was -- whether or not that was
20 the time to search "hos long to die in the cold" occurred.

21 Can you tell us to a reasonable degree of scientific
22 certainty your opinion about whether that search "hos long
23 to die in cold" occurred at 2:27:40 a.m. on January 29,
24 2022?

25 MR. ALESSI: Same objection, Your Honor.

1 THE COURT: Okay. The objection is overruled.

2 A What I can state to a scientific degree of certainty is
3 that that search occurred at 6:24 a.m., and was the last
4 search in the tab that had been opened at 2:27.

5 Q Do you have an opinion to a degree of scientific
6 certainty whether there was any other searches similar to
7 "hos long to die in cold" that evening on that tab?

8 MR. ALESSI: Objection, Your Honor.

9 THE COURT: I'm going to allow it.

10 A May I first inquire; you meant morning I assume?

11 Q I meant morning, yes.

12 A Just clarifying, I did not look at evening searches. I
13 -- can you repeat? I apologize. I disrupted my own train
14 of thought.

15 Q Do you have an opinion to a reasonable degree of
16 scientific certainty whether there were any other searches
17 on that tab before the final search at 6:24:47 "hos long to
18 die in cold"?

19 MR. ALESSI: Objection, Your Honor.

20 THE COURT: Overruled.

21 A Just ensuring that I have the question correct.

22 Q Please.

23 A You're asking if what else occurred in that tab prior?

24 Q Yes.

25 A That I cannot say with a clear degree of certainty.

1 Q Did you develop a chalk --

2 A I did, yes.

3 MR. BRENNAN: I'd like to approach.

4 THE COURT: Yes.

5 Q Again, I show you the same document. Do you recognize
6 it?

7 A Yes.

8 Q And what is it?

9 A It is the exhibit that I created that was label table 1
10 and the first report I delivered.

11 Q And does that provide information that will assist us
12 in understanding your opinion?

13 A Yes.

14 MR. BRENNAN: I'd move subject to redaction that this
15 be introduced into evidence.

16 MR. ALESSI: Your Honor, I have no issue with regard to
17 the redaction aspect, but consistent with my prior
18 objection, I would object to that.

19 THE COURT: Okay. I'm going to allow this into
20 evidence. Your rights are saved, Mr. Alessi.

21 MR. ALESSI: Thank you, Your Honor. I appreciate it.

22 (Whereupon Exhibit No. 82, Chart of Ms. Jessica Hyde, was
23 marked as an exhibit.)

24

25

1 MR. BRENNAN: With the Court's permission I'd like to
2 show Exhibit 82 to the jury?

3 THE COURT: Okay.

4 Q Could we enlarge the first two? We're going to need
5 to get to the right column if we can, please.

6 Ms. Hyde, can you see it from there?

7 A I can, thank you.

8 Q If you could walk us through how this exhibit assists
9 us in understanding your explanation and the basis for your
10 opinion?

11 A This exhibit shows the Safari artifacts on artifacts of
12 Google searches in Safari related to the two searches in
13 question "how long to die in cilkd" and "hos long to die in
14 cold" that occurred on the morning of November 29, 2022, on
15 the device under examination.

16 Q If I look at this chart and I see in the top left it
17 says 2:27:40 a.m., and then under the search term it says,
18 "hos long to die in cold". How do I understand your
19 opinion that that search didn't happen at 2:27:40?

20 A This document is showing you the data that is the
21 parsed result. The source of that artifact that you see in
22 the last column is a little bit cut off. The browser state
23 DB/WAL file, that database does store how the data is
24 stored, the search term "hos long to die in cold" with an
25 associated Mac Absolute Epoch time stamp that translates to

1 2:27 a.m., that is what is physically stored. That does
2 not annotate the meaning of that artifact. That was
3 determined through testing following the NIST data
4 generation guidelines for testing.

5 Q In the second row, we see a time stamp on the left-hand
6 column 6:23:49, and it provides an artifact a cache record?

7 A Mm-hmm.

8 Q What is the term and what does that mean under the
9 search term?

10 A IOS Safari cache records. A cache refers to something
11 that a computer program wants quick and easy access to.
12 When me search on phones, anything a lot of times be it in
13 Google or in Safari, depending on what type of phone you
14 own, it will suggest what it thinks you're going to type,
15 right? So you can click it. It's trying to be helpful. In
16 this instance at 6:23:49, we have a cache record that
17 indicates that Apple suggested the phrase how long does it
18 take to digest food?

19 Q And then under that 6:23:51, it appears this is a
20 recent web search and the spelling has changed, how long
21 T-I D-I-E I-N C-I-K-D?

22 A So this in reference to these two search terms, this is
23 the first actual search that occurs at 6:23:51 a.m. Upon
24 beginning the typing of that phrase, Apple provided the
25 suggested search and the person inputting into the phone at

1 that time continued to type out a phrase and finished it as
2 how long TI D-I in C-I-K-D, which that is available to us
3 in the mobile Safari P list which tracks recent web
4 searches, and then we'll see is six seconds later we get
5 that reference in that knowledge C database that I
6 mentioned before. That's the next line. So the knowledge
7 C database is Apple's way of keeping knowledge about what
8 the user is doing. It sees and holds your knowledge. It's
9 an easy way to remember it. That's what I teach my
10 students. So that knowledge C DB tracks a lot of things
11 for predictive purposes, and so six seconds later, it's
12 logging that same search. So that search is being tracked
13 in two places.

14 Q So one search can be left as artifacts in different
15 locations on the database?

16 A Correct. There can be multiple traces or artifacts of
17 the same user action in different places on a mobile
18 device.

19 Q If we go down to the bottom, the last column at
20 6:24:47, we can again see "hos long to die in cold". If
21 you look in the first column, it's the same phrase. Is
22 that a coincidence that it appears at the bottom at 6:24:47
23 and also appears up at 2:27:40?

24 A As mentioned before, through testing of the artifact
25 for browser state DB, that artifact will hold the most

1 recent search that happened in the tab. So it is logical
2 that how long -- hos, H-O-S, long to die in cold was
3 searched at 6:24:18, tracked in that mobile Safari P list,
4 repeated in knowledge C. Knowledge made its tracking in
5 the knowledge C DB and then that table for browser state
6 DB, which again has the time that the tab was opened, or
7 the last time it was backgrounded and updated just the
8 website that was visited. So the website that is why we
9 get that 2:27 time, that's actually, as far as the data
10 storage is, the first thing I have in there because I
11 wanted to put it in chronological time order for exhibit
12 purposes is actually the last thing to happen because it's
13 the update to what's in the tab.

14 Q You offered that "hos long to die in cold" was the last
15 thing to happen. Do you have an opinion to a reasonable
16 degree of scientific certainty the time when that death
17 search was made?

18 MR. ALESSI: Objection, Your Honor.

19 THE COURT: Overruled.

20 A To a reasonable degree of certainty, I can say that
21 "hos long to die in cold" was searched at approximately
22 6:24 a.m.

23 Q Now, moving on from the 2:27 search. There were two
24 other issues that you were asked to analyze, and we talked
25 about it at the beginning.

1 Let's begin with whether or not you looked at the data
2 and analyzed the data and came to any opinions about
3 whether that phrase "hos long to die in cold" was user
4 deleted on that device?

5 A So there's two really key elements as to if that was
6 user deleted. If the question is, did I come to an
7 opinion? Yes. I'm good to say --

8 Q Can you explain how you came to that opinion that we'll
9 ultimately share with the jury?

10 A The first line in that exhibit, the ending of that if
11 you remember it said, "browser state.DB-wal" that's
12 important. So we'll talk about that in a second. But the
13 first thing I want to bring up is kind of how the database
14 works because I didn't just look at the tool result. I
15 extracted that database, and I did a deeper analysis on it
16 using Sanderson's tool because that information was in that
17 dash WAL file.

18 So when a SQLite database, which is a specific way of
19 storing, very, very common on mobile phones, actually one
20 of the most common, when that database stores data, it has
21 two versions. The most recent version and the version in
22 use here uses what's called a write ahead log. So before
23 data is committed, it is written to a write ahead log.
24 I'll kind of explain it.

1 So let's say we're in a restaurant, and we're sitting
2 at a table and we're ordering food. Our table is the
3 table. Data is going to come to the table and that's going
4 to be our food. So when we order food, let's say we've got
5 a chicken sandwich, a burger, and a pizza coming to the
6 table. The chicken sandwich, the burger, and the pizza,
7 the kitchen puts it in the warming area. This is the write
8 ahead log. The server grabs it from there. It where data
9 sits before it goes to the table, just like your food goes
10 to that serving station before your server brings it to
11 your table. Table server brings it to the table, that
12 table's got it's burger, it's chicken, and it's pizza.

13 Another table orders waffles and pancakes. They think
14 it's breakfast. The waffles and pancakes are made by the
15 kitchen. They're put on the serving area. Waitress comes
16 over. This pizza has pepperoni. I don't eat pepperoni.
17 Can you send it back? The waitress picks up that pepperoni
18 and sends it back. That's a deletion. Pepperoni pizza was
19 just removed from the table, right? We're deleting it.
20 We're moving -- we said it's not what we wanted. The
21 waitress is removing it.

22 She brings it back to that serving area. At that
23 moment, that serving area has the deleted pizza, but also
24 the waffles and pancakes that are waiting to go out to the
25 table. That's how a write ahead log works. Any changes

1 that are happening sit in the write ahead log until the
2 database is closed and then when it's re-opened, all those
3 changes are made - both additions and deletions.

4 So often when a phone is imaged, when we make a
5 forensic image, the applications are still open so we have
6 those WAL files. When we look in our Safari browser, the
7 database knows to read it to you in its current state. So
8 it tells you where the waffles and pancakes are going.
9 They're going to that table so it shows as if it's in the
10 table, but it's not on the table yet. So if when we parse
11 the data and we look at the restaurant and we don't look at
12 the back kitchen, we would only at that time see the
13 chicken and the burger, right? Pizza got sent back.
14 Waffles and pancakes haven't come out yet.

15 So when we get the data, we get two files - we get the
16 restaurant - that's the database, and we get the serving
17 area - that's the WAL file.

18 Just because it's in the WAL file does not mean it's
19 deleted. It means that that record wasn't where it
20 naturally sits yet. It could be that WAL file can contain
21 deleted and food or data that hasn't yet been delivered to
22 the database. So the WAL file consists of both.

23 So an assumption that the data was deleted just because
24 it's in the WAL file is actually not true. And the peer-
25 reviewed paper I mentioned earlier that I had accepted in

1 Forensic Science International, actually has a section that
2 explains this exact presence for SQLite databases about how
3 we refer to that is recovered and not deleted. Actually,
4 through that entire document, we don't use the phrase
5 deleted. We refer to things in statement of recovery
6 because we need to determine why it's there.

7 So we can't say that it's deleted just because it came
8 from the WAL file. Some tools will automatically indicate
9 to the examiner that they need to dig deeper into that. I
10 did do further analysis by looking at the WAL file. That
11 particular item, and it's a little bit more complex,
12 actually exists on multiple pages because it moves as the
13 database is being created, but all of them have the same
14 unique identifier. So it's the same entry. It's not more
15 than one search of "hos long to die in cold". If there was
16 more than one search that had occurred where it became the
17 top element in that database, we would see that.

18 There are, as I mentioned, other carved from the
19 database from the WAL file elements such as a search for
20 the YouTube video "It's Raining Men" because at some point
21 that was the last viewed item in a tab when that tab was
22 retired right before -- also at 2:27 a.m., but a couple of
23 seconds before the "hos long to die in cold" search. So we
24 can see that that table is put to the rear. The newest tab
25 that's open, which is why it's in the WAL file. It's the

1 most recent thing because it's like our waffles and
2 pancakes hasn't been delivered to the table yet, so it can
3 sit in that WAL file for that reason. It doesn't indicate
4 it's deleted. The second reason is there is no user
5 interaction in the interface to delete a tab. You can open
6 and close a tab and open and closed tabs are tracked in
7 that database, but you cannot delete a tab. There's no --
8 if you were to pick up your iPhone, I know you don't have
9 them right now, but if you were to pick up your iPhone and
10 look that wouldn't be a physical option you have in the
11 interface. So it could not be deleted by a user through
12 the interface for that most basic reason.

13 Q So the user, could they delete a tab if they wanted to?

14 A There's no actual option to delete a tab. For your web
15 history, you could clear the cache for example. Most of us
16 are familiar of clearing the cache in your web history.
17 You might do it because you don't want your kids to see
18 what you searched or maybe your kids don't want you to see
19 what they searched, so they'll delete it, but you can't
20 delete the tab history. It's just what tabs are there.
21 The device is tracking that.

22 Q When you looked at the software, whether it was Axiom
23 or Cellebrite, when you looked just at the report, not the
24 data itself, do either of those reports have any indication

1 noting that that web or that Safari search is characterized
2 as deleted?

3 A The tools -- Cellebrite denotes it with a red X which
4 means that it is recovered. Axiom indicates that it is
5 carved. In the same paper that I referenced earlier that I
6 authored, there's a chart in there that shows the
7 distinction between how different tools. Some will use red
8 X's, some will use question marks, some will list carved or
9 parse. So every tool chooses to do that differently.

10 That does not mean deleted. It means it needs further
11 analysis.

12 Q Should an examiner who looks just at the reports of the
13 software assume that if it is marked as recovered in
14 Cellebrite or carved in Axiom, should --

15 A An examiner should never assume something's deleted
16 without doing a manual examination.

17 Q A manual examination, is that a method that's used
18 that's generally accepted in the forensic data field?

19 A The NIST Science Foundation paper as well as the
20 dataset generation guidelines both speak to conducting
21 testing to verify and validate, and it states clearly that
22 an examiner is to verify and validate findings and to
23 determine meaning.

24 Q So given that you've used multiple tools to look at
25 tools regarding this phrase "hos long to die in cold", and

1 have seen indications or characterizations of recovered and
2 carved, in addition to the fact that actually analyzed the
3 data, did you arrive at an opinion to a reasonable degree
4 of scientific certainty whether or not the user deleted,
5 any user, deleted the phrase "hos long to die in cold"?

6 A Yes, if it's "how long to die in cold." Sorry. Trying
7 to clarify.

8 Q Pardon me. Did you come to a reasonable degree of
9 scientific certainty whether any user deleted the phrase
10 "hos long to die in cold"?

11 A Yes.

12 Q And what is your opinion?

13 A My opinion is there was no deletion that occurred by
14 the user because it is not something a user can delete.

15 Q Finally, I want to ask you about your analysis of the
16 phone records on this phone attributed to Ms. McCabe. Did
17 you go through an analysis of the phone logs and the phone
18 record?

19 A I analyzed the call logs and the phone logs on the
20 device that I was given that I was told belonged to Ms.
21 McCabe, yes.

22 Q Would a suggestion or a claim that a user deleted
23 irregularly a number of phone calls, would that be accurate
24 or inaccurate in your experience?

1 A It is inaccurate in this instance. Can you explain to
2 us why and how you came to that conclusion?

3 A Yeah, this is actually really interesting. Because of
4 what it appears in the forensics tools and additional
5 artifacts that I looked at that are not parsed by the
6 forensic tools.

7 So the call logs, when you look at it, it appears -- I
8 don't remember if it's 8:57 or 8:59 a.m. in my mind at the
9 moment, but approximately either 8:57 or 8:59 is the
10 earliest phone call we see on the 29th of January. We see
11 no call logs before, but we do see FaceTime logs before.

12 So if an examiner, again, was making assumptions
13 without testing or reviewing, the first assumption might
14 be, well, things must have been deleted because there's
15 data that exists before but not current data.

16 So then you have to go - how do phone logs work and
17 again create test data and review. What the situation here
18 is that there are three types of call logs on this
19 particular phone. There's regular calls - incoming and
20 outgoing. There are FaceTime video chats - incoming and
21 outgoing, and FaceTime audio chats - incoming and outgoing.

22 The storage for that is actually 200 records. So you
23 can only store up to 200 of each. Now, if you were a user
24 of let's say WhatsApp or Signal or Telegram, those would
25 each count, too, and they'd get their own logs.

1 So when we look at the database for the number of calls
2 between 8:59 a.m. or 8:57, again, I apologize. I'm not
3 looking at that precise time, on the 29th of January in
4 2022, there are exactly 200 calls still in that record from
5 then until the imaging of the phone.

6 There are 199 FaceTime video calls and only 27 FaceTime
7 audio calls. So the question is how do you validate that
8 that's what's happening. So we actually have call logs
9 that we can pick up in other places for recent call logs in
10 the last seven to thirty days depending on the exact
11 version of the device and how the biomes are running, we
12 can actually see incoming call logs, the number they go to,
13 and if they're incoming or outgoing in the biomes. So we
14 actually can see the history going back for the entirety of
15 that day on January 29th until midnight. Again, my scope
16 was from midnight until noon. So we can actually see all
17 of the calls. They're just not all on the call history
18 state DB.

19 Now, the call history state DB from a user perspective,
20 that button on your phone doesn't say call history. It
21 actually says recents, and what is determining is recents
22 is the most recent 200 of each category. Now, how did I
23 determine this further? There is a running log that exists
24 in a phone, lasts about three days, it's called the unified
25 log. The unified log tracks multiple things are happening

1 on the phone and manual analysis of the unified log from
2 this phone, I can clearly see each time a 201st call comes
3 in the 200th call gets deleted. So it's constantly just
4 the last 200 calls.

5 It may not be typical that we see two hundred calls in
6 three days, but on this device we do see two hundred
7 regular phone calls in the three days between 8:59 a.m. on
8 the 29th and when the phone was imaged.

9 Q Do you have an opinion to a reasonable degree of
10 scientific certainty whether there was any user deletions
11 from the phone call log that morning?

12 A Yes.

13 Q What is that opinion?

14 A The opinion is that I can see that it's done by the
15 device itself utilizing the unified logs, that the system
16 is deleting the 201st every time a new call is received or
17 outgoing.

18 MR. BRENNAN: Thank you. I have no further questions.

19 THE COURT: All right. Can I see counsel at sidebar
20 regarding scheduling and a few things?

21 (Sidebar commences:

22 THE COURT: Do you want to start, Mr. Alessi, or do you
23 want to wait --

24 MR. ALESSI: I'd prefer to wait after lunch, please.

1 THE COURT: All right. So one thing I do -- a couple of
2 things I want to put on the record, too. When we were here
3 on the last sidebar conference, and Mr. Alessi put his
4 objections on the record that I agree were very well
5 stated, I was not abandoning my gatekeeper function. I
6 just wanted to get the case to the jury, the evidence back
7 to the jury. There was no *Daubert* challenge to this
8 witness filed pretrial, correct?

9 MR. ALESSI: We didn't have her PowerPoint until just
10 before this trial started, so the basis for the *Daubert*
11 challenge was not possible because we just got the
12 documents before she -- when she served -- we got the
13 PowerPoint.

14 THE COURT: All right. So the PowerPoint was not used.
15 Was that a slide?

16 MR. BRENNAN: That was a slide. I think that leads to
17 a PowerPoint.

18 MR. ALESSI: I just want to make it clear.

19 THE COURT: Okay.

20 MR. ALESSI: I called it a PowerPoint what was put up.
21 If he called -- whatever it was that was up for the
22 demonstration, we didn't have that until recently so I
23 couldn't have given a *Daubert* challenge.

24 THE COURT: All right. So I just want to say that I did
25 not abandon my gatekeeper function. I found that this

1 witness certainly is qualified to testify as an expert in
2 forensic digital evidence. I've applied the *Daubert*
3 factors. Your objection focused on your defendant's
4 objection focused on the lack of tethering methodology used
5 by this witness to her opinion. I do find, so that the
6 record is clear, that the Commonwealth has met its burden,
7 has established general acceptance within the relevant
8 community and otherwise has met its burden under *Canavan*
9 and *Daubert*, so I just wanted to make that clear. So we'll
10 start you up after the lunch break.

11 MR. ALESSI: Yes, Your Honor. I'll be ready, and it'll
12 be a while with this witness just so Your Honor knows
13 through cross.

14 THE COURT: I expect it will probably be at least the
15 rest of the day.

16 MR. ALESSI: At least the rest of the day.

17 THE COURT: All right. Thank you.

18 end of sidebar.)

19 THE COURT: All right. Ms. Hyde, I'm going to let the
20 jurors have lunch. You can walk out after the jurors. The
21 jurors have lunch, too.

22 THE WITNESS: Thank you, Your Honor.

23 THE COURT: We'll see you back here in about 45
24 minutes.

25 THE WITNESS: Thank you, Your Honor.

1 THE COURT: Jurors, we'll recess for 45 minutes for the
2 lunch recess.

3 (Court in recess at 12:50 p.m.)

4

5

6

7 (Court in session at 1:39 p.m.)

8 (Defendant is present with counsel.)

9 (Jury in.)

10 THE COURT: I was told counsel wanted to see me at
11 sidebar. MR. ALESSI: Yes, Your Honor.

12 (Sidebar commences:

13 THE COURT: So the jury's in its box.

14 MR. ALESSI: Yes. Yep, thank you, Your Honor. The
15 reason I wanted to see the Court is over the lunch break I
16 went and watched a video of the comment that Your Honor
17 made that was the subject of a sidebar that we had. In the
18 video, and Your Honor can watch it if Your Honor chooses,
19 to me is quite egregious as to what Your Honor said and
20 more importantly, the disdain and the facial expression
21 Your Honor used in front of the jury and then pointing
22 saying this will be the last time, Mr. Alessi. I can take
23 all of that. I don't think it's appropriate, I can take it,
24 but my client can't, and I have essentially 90 percent of
25 the expert case in this case. I'm bookending this case.

1 I'm the ambassador to my client on what the prosecution has
2 called one of the key aspects of this case, the date of the
3 science. And I believe based upon the comment, and it's
4 been a bit cumulative with defense counsel, but I'm going
5 to focus on this one.

6 I believe it has caused an impression upon the jury
7 that I am giving either baseless objections, I am either
8 wasting the Court's time, wasting their time, that they
9 draw that conclusion from it. And what I believe and what
10 I'm questioning, Your Honor --

11 THE COURT: That's what I want to know. What do you
12 want me to do?

13 MR. ALESSI: Yeah, I would like a curative instruction.

14 THE COURT: What do you want me to say?

15 MR. ALESSI: What I would like you to say to the jury
16 is, you know, members of the jury, I had made a comment in
17 response to Mr. Alessi requesting a sidebar conversation. I
18 do not want you to take anything from that. Mr. Alessi is
19 representing his client according to his best
20 representation. I'm very concerned about making good use
21 of the jury's time. That is of interest to the Court, and
22 Mr. Alessi came over, he gave -- and I just want you to say
23 what you said, he gave well-stated objections and it was an
24 appropriate use of the time, and I want the jury to make
25 sure that they disregard any comments that the Court has

1 made with regard to him asking for sidebar. He's just
2 doing his job or any version of that.

3 THE COURT: I'll say some version of me getting
4 frustrated with counsel. It doesn't mean anything or
5 something like that.

6 MR. ALESSI: What I want to have is not put that
7 there's a basis for the frustration because Your Honor said
8 when I came here that my objections were well stated.

9 THE COURT: That last one. I said it at the end.

10 MR. ALESSI: Well, I don't make many of them, and I
11 think that was my second request the entire trial to ask
12 for a sidebar, and there's been other people who have asked
13 for a lot of them. That was just my second request ever in
14 this trial.

15 THE COURT: That's why I figured I would paint a
16 broader brush where you said it's happened more. Okay.

17 MR. ALESSI: Appreciate it.

18 THE COURT: So I will address it. I don't have to but
19 I certainly will.

20 MR. ALESSI: And I hope I got a little bit in the bank
21 also, Your Honor. I didn't have Guarino and I cut my
22 Whiffin short because I try cases different than I do
23 motions.

24 THE COURT: Okay. Thank you.
25 end of sidebar.)

1 THE COURT: Jurors, as you know I told you in the
2 beginning, one of my functions is to make sure a case is
3 tried fairly and efficiently and not to waste anybody's
4 time. So if I get frustrated at lawyers about something, I
5 try not to and I don't think I am, but if I seem to cut
6 somebody short, the lawyers are just doing their job. When
7 they request sidebar conferences, they're just doing their
8 job. I am going to try and keep all sidebar conferences to
9 a minimum but the lawyers are doing their job. Okay.

10 All right. Go ahead, Mr. Alessi. Let's bring in the
11 witness.

12 MR. ALESSI: I just need the witness.

13 THE COURT: All right. Good afternoon.

14 THE WITNESS: Good afternoon, Your Honor.

15 MR. ALESSI: May I, Your Honor?

16 THE COURT: Yes.

17 **CROSS-EXAMINATION**

18 **BY MR. ALESSI:**

19 Q Good afternoon, Ms. Hyde.

20 A Good afternoon.

21 Q I noticed you had some documents with you. Could you
22 just state what is in front of you so I know that I might
23 be able to help expedite this if I know what you have in
24 front of you?

1 A Absolutely. I have the first digital forensic analysis
2 report I completed for the previous trial.

3 Q Do you have a date? There's several of them.

4 A I do. It's the first one, I apologize. This is the
5 one I believe it's May -- I don't remember the day off the
6 top of my head.

7 Q May of 2023?

8 A May of 2023, obviously. Then I have the second one.
9 This was the one that was used in the pretrial motion.

10 Q December 2024?

11 A December of -- yes, that's correct. Very nice. Then I
12 have the third one, this is the final one regarding the
13 phone that was identified as Ms. McCabe's. And then I have
14 the fourth one, which is the phone of Mr. O'Keefe, and then
15 I do have the opinion from *State vs. Herrera*, but if we
16 don't need that, that's fine.

17 Q Okay. Very well. I appreciate you telling me that. In
18 March -- and you recall on your direct examination,
19 Attorney Brennan asked you questions going to your
20 experience and qualifications. Do you recall that those
21 questions?

22 A Yes, I do.

23 Q And you were involved in a case, it was actually a
24 murder trial, in the state of Maryland in a case called
25 *State v. Herrera* as recently as March of 2025, correct?

1 A Correction. It's an attempted murder.

2 Q Attempted murder. And in that particular case, you had
3 attempted to offer various opinions for the Court, correct?

4 MR. BRENNAN: I object.

5 THE COURT: You have to move along from this case from
6 what you're talking about. You have to move along from
7 that Maryland case.

8 Q So with regard, do you recall another case from the
9 state of Massachusetts, Arrington case, in which you
10 submitted a *pro se amicus*. Do you recall that case?

11 A I do.

12 Q And is it correct that in that case, you submitted
13 arguments on behalf of the prosecution in that case?

14 A I submitted an amicus brief which is not on behalf of
15 anybody. It's a friend of the Court.

16 Q Right. But the friends of the court, you took a
17 position in that, quote, friends of the court brief,
18 correct?

19 A I took a position on the evidence.

20 Q Right. And the position you took on the evidence was
21 that the frequent location history data is reliable and
22 should be used; is that correct?

23 A The statement is that frequent -- I do not have that
24 amicus in front of me. It has been a year and a half since
25 I read it, but that amicus does discuss frequent location

1 history records, and I want to be clear, it speaks to both
2 bias on both sides and the negative and positive of
3 submitting it. It was an unknown bias writing and it was
4 not specifically in support of the prosecution.

5 Q So you are testifying in this case on behalf of the
6 prosecution, correct?

7 A In this case, I was hired by the prosecution. That is
8 correct.

9 Q And the prosecution is paying you for your services in
10 this case; is that correct?

11 A Yes.

12 Q And with regard to this case, you have been paid and
13 have been on this case since May of 2023, correct?

14 A That is correct.

15 Q With regard to the various reports that you have
16 submitted in this case, you have mentioned one which is a
17 report with regard to the iPhone of John O'Keefe; is that
18 correct?

19 A That is correct.

20 Q And you have in that report you have made a statement,
21 have you not, that from 12:20:50 a.m. on January 29th of
22 2022, and after, there is no indication of interaction with
23 the device; is that correct?

1 A There is no indication of user interaction with the
2 device. It is all received until about 6:04 a.m. when
3 there is again Apple health data that picks up.

4 Q But I'll ask it again. And you can feel free to turn
5 to page 1529 in that report.

6 A Page 15?

7 Q Page 15 1-5 29.

8 A The report is 50 pages.

9 Q Would you like the page number for it or the page
10 and --

11 A Oh, I'm sorry. I'm sorry. I thought you were saying
12 page 15 in the report.

13 Q No, no.

14 A I apologize.

15 Q It's at page 1529 or page 7.

16 A Page 7, okay, Roger.

17 Q So page 7, you see there's a heading interactive phone
18 activity, correct?

19 A Correct.

20 Q And at the top it says, "Using a variety of different
21 artifacts, we can see active interaction with a mobile
22 device --

23 THE COURT REPORTER: Mr. Alessi.

24 THE COURT: Yeah, you have to slow down.

1 MR. ALESSI: Okay. Sorry about that. I'm just trying to
2 move it along, but I will be slower. I'll repeat.

3 Q "Using a variety of different artifacts, we can see
4 active interaction with the mobile device until 12:20:50
5 a.m. ET." Do you see that statement?

6 A Yes.

7 Q And then if you skip down, I'm going to skip a couple
8 of sentences, to the paragraph under the chart, and this is
9 the key part.

10 A Okay.

11 Q It says, "From that point," and I'm understanding that
12 point to be the 12:20:50 a.m., correct?

13 A Mm-hmm.

14 Q You need to say yes or no. I'm sorry.

15 A Yes.

16 Q "There is no indication of interaction with the
17 device." Did I read correctly?

18 A That is correct.

19 Q So I am going to -- and you believe that statement is
20 correct?

21 A Until six oh -- six something a.m.

22 Q I'm sorry. I'm just asking if that statement is
23 correct, not if you have other information, but is that
24 statement correct?

25 MR. BRENNAN: I object.

1 THE COURT: Can you answer that, Ms. Hyde? Can you
2 answer that yes or no?

3 Q Did I read that correctly?

4 A You read it correctly, yes.

5 MR. ALESSI: If we could, Your Honor, have a document
6 that is put up already in evidence and publish Exhibit 39.

7 THE COURT: Okay.

8 MR. ALESSI: And it will be -- thank you. And if we
9 could go to slide 82, please.

10 Q Ms. Hyde, if I could draw your attention to the entry
11 that is -- it says 3209 under app lock, but we know that
12 the 00 is a 12, so it's 12:32:09 a.m. on January 29, 2022,
13 and I'm going to read what it says in red and this is a
14 timeline of Mr. Whiffin. Do you know Mr. Whiffin?

15 A I do know Mr. Whiffin.

16 Q And so he put a red dot, "He said device locked with
17 lock button for the last time." Do you see that?

18 A I do.

19 Q And you know that to lock a phone, you actually have to
20 hit the side button with regard to an iPhone to make it
21 lock; do you know that?

22 A Yes, sir.

23 Q And that is an interaction with a phone, is it not?

24 A I concur.

1 Q So that means that that interaction with the phone
2 occurred at 12:32:09, correct?

3 A I did not review that specific artifact. I cannot
4 attest to Mr. Whiffin's exam only to my own.

5 Q So do you have any reason to believe that what is in
6 evidence in this case that Mr. Whiffin has produced, and
7 that -- do you have any basis to contest the fact that the
8 device was locked with a lock button for the last time on
9 the phone of John O'Keefe at 12:32:09 as you sit here?

10 A I cannot contest it because I do not recall looking at
11 that specific artifact.

12 Q Don't you think it would've been appropriate to be
13 accurate, as a digital forensic analyzer, on the topic of
14 the last -- of an indication of interaction with the
15 device, don't you think it would've been appropriate to
16 look at that 12:32:09 in any of the tools you said you used
17 on direct?

18 A I did not correlate that artifact in my timeline.

19 Q I understand you didn't. My question is you make a
20 statement -- well, let me back up.

21 You -- do you understand that in this case, as in many
22 cases, that matters of seconds in activity can be
23 determinative of a case? Do you understand that from your
24 experience?

25 A Absolutely.

1 Q So it's important, therefore, to get activity right in
2 -- for any data forensic examiner when they're issuing
3 reports about activity particularly of a decedent; is that
4 important?

5 A Absolutely.

6 Q So isn't it correct that the statement that you make on
7 page 7 of your report, that from that point, 12:20:50,
8 there is indication of interaction with the device is
9 incorrect?

10 A I cannot make that without going back and reviewing and
11 validating the artifact you just produced from Mr. Whiffin.
12 I would need to validate that in order to respond to that.

13 Q But as you sit here, you have no basis to contest what
14 Mr. Whiffin has stated that there was a lock button on the
15 side of the phone of Mr. O'Keefe a full 12 minutes after
16 you say there was no interaction with the device; is that
17 correct?

18 A I don't. I would have to review that portion.

19 Q Is there anything that had prevented you from reviewing
20 that in that data before you wrote this report?

21 A Not that I can think of. I would have to go and re-
22 view that.

23 Q My question is --

24 A I don't know if that artifact -- I have not reviewed
25 that artifact, so I cannot speak to an artifact I have not

1 reviewed, and I did not -- that is not my report. That's
2 Mr. Whiffin's report, so I cannot speak to that without
3 going back and reviewing that evidence.

4 Q Is it the interaction with the device a lock button
5 readily available to you in the data that you have and had
6 in your possession when you wrote this report?

7 A Yes.

8 Q Thank you. If you could please turn to the same
9 report, page 1528, which is your Page No. 6, and I just
10 want you to please go to just put a placeholder in that,
11 and if you could now just go to the conclusion, which is
12 your page 50, 5-0.

13 Let me know when you're there.

14 A I am there.

15 Q So in the conclusion, you state that starting at 12:01
16 a.m. on January 29, 2022, the mobile phone was in use with
17 activity of Waze navigating to 34 Fairview Road Drive,
18 Canton, MA, active interaction with the screen, steps,
19 audio playing, text messages, and calls until 12:31 a.m.
20 EST on January 29, 2002. Did I read that correctly?

21 A Yes.

22 Q That statement is also incorrect, isn't it?

23 A On what basis? I --

24 Q Do you believe that statement is correct or incorrect?

1 A I believe that the statement is correct regarding those
2 artifacts that are mentioned in that statement, yes.

3 Q Okay. If you could, please. If you could turn to page
4 1535 of the same report.

5 A Can you give me my page number, please.

6 Q I will. I will -- I'll just --

7 A Thank you.

8 Q You're welcome. If you could turn to your page 13.

9 A Thirteen, Roger. Yes, I'm there. And do you see an
10 entry that says 12:31:56 which is the same time in the
11 conclusion but I'm going to develop it.

12 A I believe I know where you're going that that --

13 Q Wait. I'm sorry I need to ask --

14 A I apologize.

15 Q I appreciate you looking to help, but if I could I'd
16 appreciate it.

17 A Absolutely.

18 Q Thank you. So it's got health steps and it has steps
19 36, duration 20.9 or 20.398 seconds. Did I read that
20 correctly?

21 A That is absolutely correct.

22 Q So if you look at this data point in your report on
23 page 13, the steps began at 12:31:56, but they ended 20.39
24 seconds later at 12:32:16; is that correct?

25 A That is correct.

1 Q So therefore your statement and your conclusion, if you
2 could go back to 50, and this is in your conclusion, your
3 statement there is that the steps -- the mobile phone's use
4 activity including steps until 12:31 a.m. EST. That should
5 read until 12:32:16, correct?

6 A It depends on your interpretation of interaction. As a
7 user is walking, they're not actively interacting with
8 their device. It's movement that is, it's not direct
9 interaction with the screen. But I would agree to your
10 view that that could be interpreted as needing an
11 additional 20 seconds.

12 Q Is it the more correct way to state the conclusion that
13 the active interaction when it comes to steps is not
14 calibrating using the screen, but the phone is calculating
15 steps taken; isn't that correct?

16 A That is correct, but that's not interactivity with the
17 device.

18 Q I understand.

19 A Yes.

20 Q But the sentence reads, "includes steps," and the more
21 accurate way to have stated that would have been to put
22 12:32:16 instead of 12:31 a.m., correct?

23 A I'm sorry. You just said 12:30 -- I did this to the
24 minute, not to the second. Could you rephrase what you
25 were stating?

1 Q I'll state it again.

2 A I appreciate that.

3 Q You're welcome. So is it the more correct way to state
4 this important data point in your conclusion instead of
5 saying active interaction with the screen in steps, et
6 cetera until 12:31 a.m. EST, the 12:31 should be 12:32
7 because the steps that you have on your page 13 by what you
8 concede is the duration of 20 would have brought it to
9 12:32:16, correct?

10 A I would state that depends -- I believe either is a
11 correct way to state that. Based on interactivity, based
12 on your interpretation, your definition is more correct.

13 Q Okay. Thank you. And it's not my interpretation, I'm
14 reading from your report.

15 A Your interpretation that 12:32 is a more correct
16 representation of interaction is based on your theory that
17 interaction concludes when the steps end, and I'm saying
18 both would be acceptable.

19 Q Okay. So last follow-up on this.

20 A Sure.

21 Q Isn't it correct that it isn't my theory when the steps
22 end --

23 A Oh, it's -- I agree.

24 Q Let me just finish.

25 A Please, absolutely. Sorry.

1 Q If we talk over each other, the stenographer is not
2 going to get both of us.

3 A Agreed.

4 Q So it's not my theory, it's just the simple math from
5 an entry you've made on page 13 that the steps began at
6 12:31:56. They ended 20.398 seconds after that which just
7 doing the simple math is 12:32:16. Did I do the math
8 correct?

9 A That is correct. I am not debating that.

10 Q Thank you very much. So now what I'd like to do is to
11 go to page 1528 of your report.

12 A Do you have my page number for that? I'm sorry.

13 Q Yes. And I appreciate that you go page number, so I
14 can center it in on the lower one and then I'll go
15 immediately to the one. So it's your page 6, Ms. Hyde.

16 A Thank you.

17 Q You're welcome. Just let me know when you're there?

18 A I'm there.

19 Q If you could please go to Apple health data steps.

20 A Mm-hmm.

21 Q And we've been talking about steps because you've put
22 them in a report, correct?

23 A That is correct.

1 Q So let's go to an important data point therefore in
2 your report in the chart which is the second entry which
3 is, as you've stated 12:21:10 a.m. Do you see that?

4 A I do.

5 Q And you note under the data that John O'Keefe's phone
6 registered 80 steps at 12:21:10. Did I read that
7 correctly?

8 A You did read that correctly.

9 Q And those 80 steps constituted 191.253 seconds as you
10 state, correct?

11 A That is what is stored in that database, correct.

12 Q And is my math correct so that the jury understands
13 this perhaps a little better --

14 A Sure.

15 Q -- that 191.253 seconds equals 3.2 minutes?

16 A Approximately, yes.

17 Q Approximately.

18 A I'm doing the math in my head, so that's why I said
19 approximately.

20 Q Right. Understood. So am I reading this entry
21 correctly, stating what the data shows that 80 steps were
22 taken by the phone -- Mr. -- whomever had the phone of Mr.
23 O'Keefe, there were 80 steps taken at 12:21:10 a.m. on
24 January 29, 2022, for a length of time of 3.2 minutes?

25 A That is what the phone registered.

1 Q That's what the phone registered. Very well.

2 Now what I'd like to do is to turn to the phone of
3 Jennifer McCabe.

4 A Okay.

5 Q And that is, for your reports, you don't date your
6 report so I can't give you a date. But it says --

7 A I know. It's report three I believe is the --

8 Q Exactly.

9 A Yep.

10 Q It's three. And there is -- bear with me. I'm
11 accommodating your page reference, and I'll have it soon
12 for you. It is your page 7.

13 And let me know when you are there.

14 A I am there.

15 Q Are you aware of an issue regarding the time of an
16 interactive phone activity on Jennifer McCabe's phone at
17 5:07 a.m.? Are you aware of that issue, and particularly a
18 communication to a person named Coco. Are you aware of
19 that?

20 A I would need to check in my report. May I turn to the
21 page for that time?

22 Q Absolutely.

23 A I do see an outgoing call to someone labeled Coco at
24 5:07:21 a.m.

1 Q And you can tell that because in your report, on page
2 11, you list a 5:07:21 a.m. call to a Coco as outgoing,
3 correct?

4 A Correct.

5 Q Have you discussed that call with any member of the
6 Commonwealth?

7 A No.

8 Q And again, this call is at 5:07 a.m. on January 29th of
9 2022, correct?

10 A That is correct.

11 Q There is no duration listed for that call. And if you
12 just follow my questions, if you can, yes or no; is that
13 correct, there's no duration you have listed?

14 A Correct.

15 Q So what I want to do is to also note that that omission
16 is not the only omission of durations from this report or -
17 - I'll state it differently. Let me withdraw that.

18 There is no population of the duration column for any
19 call from 12:14:30 a.m. on January 29, 2022, all the way
20 through this 5:07:21 call, and you don't start listing
21 durations until 8:59:34 a.m.; is that correct?

22 A Yes, and explainable. The artifact --

23 Q I understand. Mr. Brennan can handle those on his
24 redirect. A Absolutely.

1 Q So there's not a population of duration of calls after
2 numerous early calls and phone -- as you call it,
3 interactive phone activity, nothing populated in this
4 report until 8:59:34; is that correct?

5 A Correct. Yes.

6 Q All right. Now, what I'd like to do is to turn to the
7 2:27:40 artifact that had -- that was the discussion of
8 much discussion on direct, and I am going to refer to that
9 as an artifact. Is that a parlance that is familiar to
10 you?

11 A Yes.

12 Q And if I refer to that as a time stamp also, is that a
13 parlance that's familiar to you?

14 A Absolutely.

15 Q So I can refer to 2:27:40 as a time stamp, and you
16 would find that parlance acceptable?

17 A Yes.

18 Q Thank you. So I'm going to do that. Just to keep it
19 simple, I'm going to refer to it as a time stamp.

20 Now, you've been on this case working for the
21 Commonwealth since May of 2023, correct?

22 A May 4, 2023. That is correct.

23 Q So you've been on this case for two years, correct?

24 A Not actively the entire time.

1 Q But you started on this case in May 2023. You issued a
2 report in --

3 A Correct.

4 Q -- May of 2023, correct?

5 A Correct.

6 Q You issued a report in December of 2024, correct?

7 A Correct, after being rehired in November.

8 Q Right. And you issued more reports in 2025, correct?

9 A That is correct.

10 Q So all of that activity has been on this case, correct?

11 A All on this case, that is correct.

12 Q That has all on behalf of the prosecution, correct?

13 A That is correct.

14 Q None of that work has been done on behalf of the
15 defense, correct?

16 A That is correct.

17 Q So let us now go to the time stamp of 2:27:40.

18 Your opinions on what is the meaning of that time stamp
19 have varied from May of 2023 until today; is that correct?

20 A No, that is incorrect.

21 Q Let's cover that issue.

22 A Sure.

23 Q Let's turn to your May 2023, report. Isn't it correct
24 that the report -- and your findings were pursuant to a
25 request from Detective Lieutenant Brian Tully?

1 A Correct.

2 Q And how many interactions have you had with Lieutenant
3 Detective Brian Tully on this case, approximately?

4 A I really don't know. I'd have to go look back at email
5 and call logs.

6 Q Is it more than five?

7 A Yes.

8 Q Is it more than ten?

9 A Yes.

10 Q Is it more than 20?

11 A I don't know.

12 Q So somewhere between ten and twenty, would that be
13 fair?

14 A Again, I'd have to review my call logs. I'm not going
15 to test --

16 Q But it was more than ten?

17 A More than ten, I'm sure.

18 Q So the issue was your use of various forensic tools
19 that revealed a time stamp, a 2:27:40 a.m. time stamp on
20 January 29, 2022; is that correct? Is that a fair
21 characterization of an issue you looked at?

22 A Correct.

23 Q So if you could go to page 5 of that report, and I
24 would ask that you go to the last paragraph that starts

1 with, "In the instance of the Google search," and let me
2 know when you're there.

3 A I'm there.

4 Q So it reads, "In the instance of the Google search,
5 'hos long to die in cold' that was recovered from the write
6 ahead log associated with the X browser state DB SQLite
7 database with the time stamp of 2:27:40 a.m., was marked by
8 Cellebrite as having this time stamp and being deleted."

9 Did I read that correctly?

10 A Fair, yes.

11 Q So you used the word that that Google search "hos long
12 to die in cold" was associated with the time stamp of
13 2:27:40 a.m., isn't that what your words are in this
14 report?

15 A In that database, they are associated. That is
16 correct.

17 Q Right. And in terms of page 3, if you could go back of
18 your report, under relevant findings?

19 A Mm-hmm.

20 Q It starts with, "There were two searches of interest
21 that took place on the iOS device," and we're talking about
22 Jennifer McCabe's device, correct?

23 A The device that was identified to me as Jennifer
24 McCabe's, yes.

1 Q That's identified to you as Jennifer McCabe. And
2 that's you talked about on direct examination, right?

3 A Absolutely, yes.

4 Q It's not a mystery as to whose it is. It's not like
5 you don't know, right?

6 A In direct, I also used the phrase, "Identified to me as
7 Jennifer McCabe's."

8 Q Right. But your conclusion is the device you've been
9 working on and analyzing for two years is the device of
10 Jennifer McCabe?

11 A That is how it was identified to me.

12 Q Do you have a different conclusion as to whose the
13 device is?

14 A I have always am very, very careful that I do not -- I
15 did not assess the ownership. That was information that
16 was given to me, not information that I personally
17 assessed.

18 Q So are you uncertain as whether the device you've been
19 working of for two years is the --

20 A The device that I have been working on for two years is
21 the device that was identified to me by the Massachusetts
22 State Police, Detective Tully, as belonging to Jennifer
23 McCabe when I began working and received that device as
24 stated in the evidence analyze section on this same page.

1 Q So let's go, and we're talking about again, to get back
2 to the center of gravity, we're talking about a time stamp
3 of 2:27:40 a.m., correct?

4 A That is correct.

5 Q And when you issued your first report in May of 2023,
6 the time stamp you were looking at was 2:27:40 a.m.,
7 January 29, correct?

8 A I was looking at multiple time stamps associated with
9 the same two searches.

10 Q Right. So what I'd like to do -- you said multiple
11 time stamps. What times are in the multiple categories?

12 A What I was tasked to do was to look at the times -- the
13 search -- the Google search history -- I'm sorry. Not
14 Google search. The Safari history which includes Google
15 searches associated with those two search terms within that
16 twelve hour period. That was the particular task, not the
17 task of looking at the 2:27, just for clarity.

18 Q And I appreciate that, but my question wasn't that. My
19 question was I thought I heard you on direct examination,
20 which is why I repeated the question when I heard it on
21 direct, but I'll ask you the question.

22 A Sure.

23 Q You looked at and talked about on direct two potential
24 times where a Safari search, which includes Google, one of

1 which was 2:27:40, and the other one was 6:23 a.m.; is that
2 correct?

3 A I analyzed the meaning of those two time stamps.

4 Q Right. So we're just talking about two times, 2:27:40
5 and then 6:23; is that correct?

6 A So you are only talking then about the one -- we're
7 also talking about 6:24 a.m. I am.

8 Q Okay. So --

9 A Eastern time for clarity because some of these records
10 are in UTC, some are in local.

11 Q Fair enough. So you've got 2:27:40, you've got 6:23
12 and you got 6:24 that you were looking at, correct?

13 A There are other time stamps that exist in the realm of
14 what I was looking at, but those ones correct are the ones
15 that are relevant in this report.

16 Q Exactly. And that's what we're talking.

17 A Okay. Just --

18 Q We're talking about this report?

19 A Yes.

20 Q And so if you look under relevant findings at the very
21 bottom paragraph, you say, second sentence, "A Google
22 search for, 'how long to do in cold,' at approximately
23 11:23 a.m. and then 'hos long ti die in cold' took place at
24 11:24?"

1 A That is in UTC. I apologize for not having the time
2 stamp format there, but that is the UTC time. The UTC time
3 equivalent in Eastern local time would be 6:23 and 6:24.

4 Q So to be clear in your report you wrote, "11:23 a.m.
5 and 11:24," and you didn't put UTC next?

6 A Correct. They should -- you're correct. That should
7 say UTC. That is a typo.

8 Q And there's a significant difference between 11:23 and
9 2:27:40 correct?

10 A Eleven twenty-three is UTC, so it's equivalent in
11 Eastern time would be 6:23. The artifact of 2:27 is
12 already in local time, so that is in Eastern time. So what
13 we would be comparing is 2:27 and 6:23 and 6:24 to be
14 appropriate, taking into account the data storage and which
15 ones are in UTC and which ones are in local time.

16 Q I understand your explanation now.

17 A Perfect.

18 Q But in this report, there is no UTC time down. You
19 have two additional times in addition to the two times --
20 two different numbers added to the two, correct?

21 A The UTC was a typo. It should say UTC next to those,
22 and the chart shows all of those artifacts in EST, and is
23 clearly labeled that they're all in EST.

24 Q So you would agree that it's better stated to state it
25 a different way than you have in your report?

1 A I would say that both are equivalent. I should have
2 had UTC there, but, yes, it's easier for the audience to
3 speak in EST. I would say forensic examiners typically
4 communicate in UTC, but we translate for our reports. And
5 I should have either communicated that in EST or included
6 UTC. I will definitely contend that.

7 Q So in terms of your May of 2023 report, your first
8 report in this matter.

9 A Yes.

10 Q You on page 5, in the sentence underneath the block
11 paragraph state, "In the instance of the Google search,
12 'hos long to die in cold' that was recovered from the write
13 ahead log associated with'"

14 A That's correct.

15 Q "The X browser state with a time stamp of 2,027 40 a.m.
16 was marked by Cellebrite as having this time stamp and
17 being deleted." Did I read that correctly?

18 A You read that correctly.

19 Q Now, let's move ahead to page 7 of your report.

20 A Mm-hmm.

21 Q Up at the top above conclusion, "Importantly at this
22 time," you state, "testing shows great inconsistency with
23 time stamps parsed from this file. It is, however,
24 definitive that the page existed in a text?"

25 A Correct.

1 Q "While a definitive reason as to why the time stamp is
2 listing the time of 2:27:40 is unknown, the time is
3 inconsistent with the time stamps associated with the same
4 search."

5 Did I read that correctly?

6 A You did read it correctly.

7 Q So as of May 2023, you said the definitive reason as to
8 why the time stamp is listed as 2:27:40 is unknown,
9 correct? I'm just asking is that what you wrote "unknown"?

10 A I believe that the wording here is -- sorry. I know I
11 use the word unknown. It says, "While a definitive reason
12 as to why the time stamp listing is the time of 02:27:40 is
13 unknown -- sorry.

14 THE COURT REPORTER: Can you slow down?

15 THE WITNESS: Sorry.

16 THE COURT REPORTER: And say that again.

17 Q So you used the word unknown, your word in your report?

18 A Yes.

19 Q Okay. So now what I'd like to do is go on to the first
20 proceeding in this matter.

21 Do you remember giving testimony in a proceeding about
22 a year ago under oath?

23 A Yes, I do.

24 Q I am now going to go to that testimony, and if at any
25 point you would like to have a copy of that, if it's -- if

1 Your Honor would like, I will do it, but I'm going to start
2 and then we'll see how it goes.

3 So bear with me a moment. Do you recall in that
4 testimony stating that you processed the image in several
5 forensic tools, "I used Cellebrite, Physical Analyzer," and
6 then you list many other tools. Do you remember giving
7 that testimony?

8 MR. BRENNAN: Could we have a page and line number?

9 MR. ALESSI: I'm sorry, Mr. Brennan. I thought I had
10 given it, 1-12. My apologies if I didn't. It's June 14,
11 2024, page 1-12.

12 MR. BRENNAN: Thank you.

13 MR. ALESSI: You're welcome.

14 Q So do you recall giving testimony about the various
15 tools used for this time stamp?

16 A I do.

17 Q And do you recall stating that those tools were
18 commonly used digital forensic tools that are very
19 standard; do you recall that?

20 A I'd have to see the wording that I used at that exact
21 time.

22 Q What it be helpful to refresh your recollection if I
23 showed you that?

1 A It would be great. I would greatly appreciate that
2 because I do not recall the precise wording, but I know
3 that I spoke to the tools that I used.

4 MR. ALESSI: May I approach, Your Honor?

5 THE COURT: Yes. Mr. Alessi, you offered a transcript.
6 Do you have the whole transcript?

7 MR. ALESSI: I have the whole transcript if that helps.

8 THE COURT: It might speed things along.

9 MR. ALESSI: Agreed.

10 Q So, Ms. Hyde, I'm going to give you a transcript so
11 you --

12 A Thank you. I appreciate it.

13 Q You're welcome. So --

14 MR. ALESSI: May I approach, Your Honor?

15 THE COURT: Yes.

16 MR. ALESSI: Thank you.

17 (Counsel confer.)

18 A Thank you so much. And you said we're on 112.

19 Q Yes, please.

20 A One-thirteen I see it. I see it's highlighted on the
21 copy so I figure that's the one.

22 Q What I wanted to do, and the reason I said 112 is
23 that's where we started with my previous question.

24 A Oh, sorry.

1 Q So I'm not going to repeat the question, but just to
2 orient you so you have a fairer context for the
3 questioning.

4 A Fair.

5 Q So I started at the bottom of 112, now I'm moving to
6 113 and I'm starting with line 7; do you see that?

7 A I do.

8 Q And it says, "Yes, they are commonly used digital
9 forensic tools that are very standard for other forensic
10 examiners to use on mobile exploitation." Did I read that
11 correctly?

12 A That is correct.

13 Q And then if you go down to line 22, you testified in
14 that proceeding, "So it's important to use multiple tools
15 so you can see the results from different table, different
16 data sets and be able to compare those results and enhance
17 those with manual analysis."

18 Did I read that correctly?

19 A You did. That's correct.

20 Q And then going up to page 114, line 5 --

21 THE COURT: Slow down a little bit, Mr. Alessi, please.

22 MR. ALESSI: I will, Your Honor. Thank you.

23 A "Yeah, that's very, very typical for me to process with
24 multiple tools to ensure that I'm getting the most complete
25 interpretation from forensic tools. Of course, you go

1 beyond that with your analysis, but it's absolutely
2 pertinent to that." Do you -- did I read that correctly?

3 A That is correct.

4 Q And then lastly for this section at page 114, 17, "The
5 Sanderson tool is meant to look at specific type of data
6 structures called the SQLite database, SQLite data bases
7 are very nuanced, and this particular tool allows you to
8 take that database and explore it at a deeper level than
9 the other forensic tools allow."

10 Did I read that correctly?

11 A Yes, you did.

12 Q Thank you. Now, if we could go to page 124 of the very
13 same testimony. And feel free to go back a page just so
14 you can see to page 123 that the topic is the 2:27:40 time
15 stamp associated with "hos long to die in cold".

16 A Can I have a moment just to review and get context?

17 Q Absolutely.

18 A Thank you so much.

19 Q Page 123 at 13, but if you need to go back further,
20 feel free.

21 A Okay. I'm good. Thank you.

22 Q You're welcome.

23 So what I want to do is start with page 1-23, and this
24 is your testimony. On line 16, "I have them in the time

1 stamp order that is associated with the artifact." You use
2 that word associated again, correct?

3 A Correct.

4 Q Did I say that correctly?

5 A Yes.

6 Q And that's associated with the Google search "hos long
7 to die in cold" and a 2:27:40 a.m. time stamp, correct?

8 A That is correct.

9 Q Now if you turn the page of the testimony, you state
10 that that then that on page 124, line 1, "The browser state
11 DB is an artifact that speaks to when tabs are moved. So
12 when you're using your browser and you open different tabs,
13 you may have a search that this time pertains to the time
14 that the tab moved. It could be lots of things."

15 A Correct.

16 Q Did I read that correctly?

17 A You did.

18 Q Not one thing, you said it could be lots of things,
19 correct? A That is correct.

20 Q And then you go on in line 10, and you talk more and
21 then you go down to the bottom. You go down to line 20,
22 and you testify, "We cannot tell by this particular
23 artifact what time that search occurred."

24 A Absolutely.

25 Q Did I read that correctly?

1 A That -- it's specifically pertaining to that particular
2 artifact they give in browser state DB, that does not tell
3 us what time a search occurred. That is correct.

4 Q Right. So you stated and it was your statement that we
5 cannot tell by this particular artifact what time that
6 search occurred, correct?

7 A That particular artifact.

8 Q Okay. So now let's -- now let's keep going.

9 A Mm-hmm.

10 Q If you go to page 129 of this transcript.

11 A I'm there.

12 Q At the top.

13 A Sure.

14 Q Line 1, "2:27 isn't necessarily one time when the tab
15 was closed. That's in my report. I say it's
16 undetermined." Do you remember we were just reading --

17 A Absolutely.

18 Q -- your May 23 report?

19 A Correct.

20 Q Because there is a lot of things that can cause that
21 time stamp to be there, including tab being moved, tab
22 being minimized, the next sentence.

23 "I don't know exactly what caused the tab to get that
24 particular entry, but it's not that time stamp is not
25 indicative of the time of the search or any URL that's

1 visited, but the first part of it is I don't know exactly
2 what caused the tab to get that particular entry."

3 Did I read that correctly?

4 A You read 100 percent correctly.

5 Q Thank you. Now if we could turn to page 130 of your
6 testimony.

7 MR. BRENNAN: I need to object.

8 THE COURT: All right. I'll see you both.

9 (Sidebar commences:

10 THE COURT: What's the objection?

11 MR. BRENNAN: I've never seen anything like this. He's
12 not impeaching the witness with a prior statement. He's
13 going through testimony, and he's taking pieces of the
14 testimony, and he's trying to create the illusion that
15 somehow this applies to a certain predicate, and it
16 doesn't. So what he's doing is he's taking a piece of her
17 analysis, and he's stepping -- this is throughout the
18 transcript, without filling in what it pertains to, or what
19 it describes or explains, certain opinions or background
20 with the transcript.

21 This isn't impeachment material. This is creating a
22 ghost that there is something that's uncertain. If he's
23 going to impeach her, he should ask her questions if
24 there's an inconsistent statement, he can confront her with
25 the inconsistent statement. If he's going to talk about

1 her testimony out of context and try to relate it something
2 to pages later, that is unfair portrayal. She will need to
3 be able to explain, or he can talk about what it pertains
4 to. It's so incongruent the way he is doing this. It
5 creates an illusion of something that is not an
6 inconsistent statement at all.

7 THE COURT: So are you laying a foundation for an
8 ultimate question?

9 MR. ALESSI: It is, Your Honor, and the inconsistent
10 statement are one of many. She testified she did a chalk on
11 how she can determine that the 2:20 -- that that tab and
12 the search was at 6:20. She's made clear to me the
13 inconsistent statement. I'm was doing it this way because
14 I thought this was Your Honor's suggestion as to how to do
15 it, but she's already made the inconsistent statement. I'm
16 going through each inconsistency. The only other way to do
17 it is to improperly conflate a methodology for going to an
18 inconsistent statement would refresh her recollection and
19 ask her each time, did you make this statement in your
20 testimony? Do you recall? No, I don't. Would it be
21 helpful to show you what your testimony is?

22 THE COURT REPORTER: Counsel.

23 THE COURT: Slow down.

24 MR. ALESSI: Yeah, I'm almost done with it. I'm sorry.
25 My apologies, Christine. I'll go slower.

1 I'm trying to do this expeditiously which is why I
2 thought Your Honor suggested giving her the test. This is
3 my last question on this testimony. It's the last one.

4 MR. BRENNAN: But it's taking pieces that are totally
5 separate without explanation and context. There are a
6 number of databases she looks at. He's picking and
7 choosing certain parts of her testimony with no explanation
8 what it means and trying to prepare that storyline that
9 there's something inconsistent when there's not. This
10 isn't confronting the witness on a prior inconsistent
11 statement, it's trying to pick out individual pieces of
12 information that don't connect to try to reach an
13 accusation or a conclusion. I can't even follow what he's
14 doing. It makes absolutely no sense.

15 MR. ALESSI: Well, the witness can follow it, and she's
16 basically following it quite easily. Here is the
17 evidentiary point. The evidentiary point is first of all
18 she's the one that's going through all the databases.
19 She's following it perfectly along. She said she can
20 follow it.

21 Secondly, I'm entitled on cross-examination to pick
22 parts of someone's testimony. It's sufficient in context
23 for her that she hasn't complained once.

24 And lastly, Your Honor, he has redirect --

1 THE COURT: Right. So I agree with you. I just wanted
2 to make a record.

3 MR. ALESSI: Okay.

4 THE COURT: So he can impeach the way he wants it. It
5 may not be clear to everybody what he's impeaching, but you
6 get a chance. There were times that she said yes, but I'd
7 like to explain and Mr. Alessi said you can do that on
8 redirect.

9 MR. BRENNAN: Okay.

10 THE COURT: So that's how we'll go about it.

11 MR. ALESSI: Thank you, Your Honor.

12 end of sidebar.)

13 Q Thank you for your patience, Ms. Hyde.

14 A Absolutely, sir.

15 Q What I'd like to do is go back to your testimony in the
16 first proceeding, and we can go back to 1-30.

17 A I am there.

18 Q Thank you. So I am going to go back just because
19 there's been some time to get some context. So we're
20 talking about the 2:27:40 a.m. time stamp, correct, at this
21 page location?

22 A We've been talking about that for several pages, yes,
23 that's correct.

24 Q You're absolutely correct. We've been talking that --
25 bear with me.

1 A No problem.

2 Q I think this may be the second to last or the last.

3 So there you testified with regard -- this was when you
4 were referring to an artifact. You've agreed that time
5 stamp is a fair synonym. You say on line five, "That means
6 it wasn't in the regular database. It was the write ahead
7 log, and to Cellebrite's credit, they -- that tool
8 absolutely parsed the write ahead log and displayed it
9 where the other tools did not." So am I correct -- did I
10 read that correctly, number one?

11 A You read it correctly.

12 Q So am I correct that here what you're stating is
13 Cellebrite was actually showing the 2:27:40 a.m. time stamp
14 at that time during your testimony --

15 A On that date, that is correct, yes.

16 Q So I just wanted to establish that --

17 A Absolutely.

18 Q -- and you had given Cellebrite credit for actually
19 showing that time stamp at that time of 2:27:40 at the time
20 of your testimony back in June 2024, correct?

21 A That is correct.

22 Q Okay. So now let's go to page 1-36.

23 A One thirty-six you said?

24 Q One thirty-six, yes.

25 A Thank you.

1 Q And on line 12, you note that so Cellebrite and Magnet
2 Axiom and then you elaborate, both Cellebrite Physical
3 Analyzer, which is a physical tool, right, of Cellebrite?

4 A Correct.

5 Q And Magnet Axiom another specific tool, correct?

6 A Correct.

7 Q Both have file system viewers that then have SQLite
8 database viewers.

9 And you skipping down to line 17. You talk about they
10 don't allow for deep analysis of the write ahead logs which
11 is why in my analysis I used the specialized Sanderson
12 forensic browser for SQLite, correct?

13 A That is correct.

14 Q So is it fair to say that what you did up to this point
15 in June of 2024, with regard to the 2:27:40 a.m. time stamp
16 on January 29, 2022, you applied a variety of tools to
17 analyze the issue of when did the Google search occurred
18 that you used the word associated with a Safari Google
19 search "hos long to die in the cold"?

20 A There's a little bit of wording I would correct there
21 if that's okay.

22 Q So let me see if I can ask the question --

23 A That would be great.

24 Q -- a different, more simple way.

25 A Thank you.

1 Q You're welcome.

2 So you used a variety of tools to analyze that "hos
3 long to die in the cold" search, correct?

4 A Plus manual analysis and testing, yes.

5 Q Plus manual analysis and testing. All right. Now let's
6 leave the testimony.

7 A Okay.

8 Q And let's go to your next report. And your next report
9 is December 2024 --

10 A I have it correct.

11 Q -- do I have the chronology correct, Ms. Hyde?

12 A That is correct.

13 Q So in December of 2024, just approximately six months
14 ago, you issued another report, correct?

15 A That is correct.

16 Q And you've got the request for that report also from
17 the Norfolk District Attorneys, correct?

18 A That is correct.

19 Q And you state in regard -- well, that report regarded
20 the analysis of the same time stamp, correct?

21 A Correct.

22 Q The 2:227:40 time stamp?

23 A Mm-hmm.

24 Q And in that report under relevant findings, you state --
25 -- and this is December of 2024, so it's from your May 2023,

1 report it's approximately a year and seven a year and a
2 half is that approximately for your May 23rd report?

3 A Approximately.

4 Q Approximately a year and a half?

5 A Yes.

6 Q A so year and half after what we just reviewed in your
7 May 23rd report and then just months after the testimony of
8 June, right, so about six months after --

9 A Six months later --

10 Q -- the testimony what we just went through, you went
11 and looked at this issue again, correct?

12 A That is correct.

13 Q And isn't it correct that when you were asked to look
14 at the same time stamp, in December of 2024, that
15 Cellebrite removed the time stamp from their tools?

16 A Cellebrite did remove that time stamp from the tool,
17 that is correct.

18 Q Okay. And that time stamp was the subject of extensive
19 reports and testimony that you participated in the first
20 proceeding, correct?

21 A That is correct.

22 Q And even though that time stamp, 2:27:40 a.m. that
23 showed up in Cellebrite tools, Magnet Forensic Axiom showed
24 up, that was removed by Cellebrite, correct?

1 A Cellebrite no longer reports it. The evidence is still
2 in the data. I want to be clear just that it doesn't change
3 the data. They just removed it from their automated
4 parsing and reporting.

5 Q Right. So they --

6 A Correct.

7 Q -- removed it from their automatic parsing and
8 reporting, correct?

9 A Yes, they did. That is correct.

10 Q However, your former company, Magnet Forensic Axiom,
11 still shows it, correct?

12 A Magnet Axiom Forensics currently shows it as a carved
13 artifact and still shows that and gives a description in
14 the artifact reference guide as to what they believe causes
15 that artifact.

16 Q I'm going to ask a question --

17 A Yes, it does.

18 Q Magnet Axiom Forensics, where you used to be director
19 of forensics --

20 A That is correct.

21 Q -- still shows that time stamp, correct?

22 A Yes.

23 Q But Cellebrite doesn't in their --

24 A That is correct.

25 Q -- automated tools?

1 A That is correct, in their automated parsing.

2 Q And you would agree that Magnet Forensics is a very
3 reputable company, correct?

4 A Correct.

5 Q Let's go back to your December 2024 report. Do you
6 recall just moments ago when we went through your testimony
7 in June of 2024 in the first proceeding where you stated
8 various times how it was I'll use the term best practices
9 to use multiple tools to analyze the time stamp?

10 A Correct.

11 Q And you've used many tools to analyze --

12 A I've used --

13 Q -- that time stamp and you've testified to those many
14 tools on your direct examination, correct?

15 A Correct, yes.

16 Q However, in December of 2024, when you returned to
17 analyze the 2:27:40 time stamp, how many tools did you use
18 to analyze that time stamp? Can you give me just a number?
19 How many tools?

20 A At least four.

21 Q Well, in your report -- let's go to your report which
22 your report says. So in your report, you state that under
23 relevant findings, do you not, that review of data from
24 Cellebrite shows that the artifact of a Google search from
25 the Safari suspended state tab with the search term "hos

1 long to die in cold" -- I'm going to skip over in addition
2 to my own previous report, no longer shows a last visited
3 time.

4 A I think that that is not clear. The skipping there
5 makes it sounds like my report no longer shows that and
6 that's not what's being stated.

7 Q That's a fair statement. That's a fair statement. Let
8 me rephrase it.

9 A Thank you.

10 Q You're welcome.

11 In this report, you speak about Cellebrite's release
12 reports, correct?

13 A Are you referring to the Cellebrite release notes that
14 come out?

15 Q The notes, you referred to that?

16 A That's correct.

17 Q And that release note states that Cellebrite has
18 removed the time stamp value from records, and I'm assuming
19 that's a reference to Cellebrite.

20 A Cellebrite no longer parses that result. That is the
21 statement in this report, correct.

22 Q Right. And so I'm going to go to page 4 of you report.

23 A For sure. I'm there.

24 Q And I'm going to go down, all the way down to the
25 conclusion.

1 In that report, is there a reference to any company
2 other than Cellebrite in this entire report?

3 A In this report, no.

4 Q Okay. Thank you. Now, let's go to your prior
5 testimony in the first proceeding where you said that it
6 was important to use multiple tools.

7 A Absolutely.

8 Q Do you still stand by your position that you've given
9 today and that you gave in June that it's important to use
10 multiple tools?

11 A Absolutely.

12 Q Now, let's go back to the issue of the extraction of
13 Jen McCabe's phone. And what I want to do is to cover a
14 concept and see if I've got this correctly.

15 Are you familiar with the phrase Apple source codes?

16 A I'm sorry. Can you please repeat?

17 Q Absolutely. No worries, sir.

18 Are you familiar with the phrase Apple's source codes?

19 A Apple's source code, absolutely, yes.

20 Q And isn't it a fact that Apple keeps its source codes
21 proprietary, meaning very few people have access to it?

22 A That's correct. It is close source is the term we
23 would use.

24 Q Closed source?

25 A That would be the term of art, correct.

1 Q They keep it so close that they call it closed source?

2 A And it's not just Apple. Lots of tools are close
3 source. That just means that the code isn't available like
4 it would be for the tool I mentioned earlier, iLeap, that's
5 an open source tool. Anyone can look at the code. For
6 Apple, we cannot go look at the code that makes your phone
7 run, that's correct.

8 Q And isn't the case -- and I refer to that as the MB
9 postulate. It's a shorthanded, but I don't need to have
10 you refer to it that way.

11 A I'm sorry. Could you repeat that phrase? I was
12 unfamiliar with it.

13 Q I'm going to skip it.

14 A Okay. Thank you.

15 Q Let's go on basically the concept that Apple has a --
16 has source codes that are closed sources. So I'd just
17 refer to them as Apple closed sources.

18 Wouldn't the best information about when a search
19 occurred, what it's associated with, wouldn't the best
20 information be in the Apple source code to answer that
21 question?

22 A It is acceptable in digital forensic science and in
23 accordance with the NIST Science Foundation papers to
24 conduct testing to determine how the functionality of

1 something works. You do not need access to the source code
2 to be able to speak to an artifact.

3 Q My question isn't that. My question is, isn't the best
4 place one -- the best place to go is to the Apple source
5 codes themselves, or are you saying these Physical Analyzer
6 tools are just as good in the information they pull,
7 they're just as good as an Apple source code?

8 A Those are very, very -- those are incongruent
9 statements. Apple source code is not a healthy way to do
10 an examination because it would be so onerous, and we do
11 not know the level of documentation. We don't know the
12 language. That is not necessarily the most effective way
13 to determine what data is. Forensics tools parse results
14 on how data is. They don't interpret them. The examiner
15 interprets them and provides meaning. And I would like to
16 state that those three things should not be conflated.
17 They are very individual concepts.

18 Q I think you misunderstood my question.

19 A I probably did because that's what I was seeing.

20 Q My question is this. Isn't the best source for
21 information about data in an iPhone contained within Apple
22 source codes?

23 A Not necessarily. Because that doesn't -- operational
24 performance is a better source in a practical sense to
25 being able to determine what something is as opposed to

1 zillions, and, no, I don't know the number because it's
2 close source, lines of code that may or may not have
3 different levels of documentation. Apple themselves
4 wouldn't be able to -- any individual there who has access
5 wouldn't know every feature of how every element works.

6 Testing through the methodologies described in NIST is
7 the accepted methodology in our science; not revealing the
8 source code.

9 Q I'm going to try it a different way. I understand what
10 you're saying is, if I got it correct, you can correct me,
11 are you saying that these physical tools make it easier to
12 interpret and view the data?

13 A I did not speak about the tool at all in the statement
14 I just made.

15 Q Okay.

16 A I spoke about manual testing and checking the
17 functionality and what results. Parsed tools -- again,
18 these are three separate concepts. The concept of code and
19 actually reviewing code to make a determination is
20 different from parsed tool results is different from doing
21 testing and validation. Those are separate concepts. They
22 should not be commingled as if they equate to each other.

23 Q So have you ever learned of -- have you spoken with Mr.
24 Whiffin?

1 A I have spoken with Mr. Whiffin historically, but not
2 since the term of this trial.

3 Q Have you ever spoken to Mr. Whiffin about whether the
4 Apple source codes are the best source of information to
5 cut out topics like time stamps? Have you ever spoken --

6 A I have not had that conversation with Mr. Whiffin, no.

7 Q All right. I want to move on to -- and you regard Mr.
8 Whiffin as a reputable --

9 A Mr. Whiffin is a reputable forensics examiner, and I've
10 actually reviewed his work in other instances and peer-
11 reviewed his papers.

12 Q So you have regard for his --

13 A I have regard for his reputation.

14 Q We have to wait for each other.

15 A Oh, yes, I'm sorry.

16 Q It's all right. No worries.

17 So you regard, have regard, for the opinions of Mr.
18 Whiffin generally, correct?

19 A Absolutely, yes.

20 Q And you believe he has a solid reputation, correct?

21 A Absolutely, that is correct.

22 Q Now, let's turn to the history DB database. You are
23 familiar with history DB? I'm sorry. History DB, are you
24 familiar with that phrase?

25 A I am familiar with that phrase.

1 Q Okay. Did any of the "hos long to die in cold" searches
2 appear in the history DB?

3 A In this instance, no, we do not have artifacts in the
4 history DB of either of those two searches.

5 Q So I want to just repeat that in a different way.

6 So the history DB, is that considered a valid and
7 valuable source of information in an iPhone?

8 A That is a valuable artifact for Safari history, that is
9 correct.

10 Q But the "hos long to die in cold" searches we've been
11 discussing do not appear in that history DB, do they?

12 A That is correct.

13 Q You spoke about PYF PDF on your direct testimony. Do
14 you recall that?

15 A I do. It's the Python framework for PDF. It is a
16 GitHub tool one can download from GitHub to utilize to
17 create PDFs using Python code. So a developer and a tool
18 would integrate that to create a PDF.

19 Q And the PYF PDF can have the variables set, correct?

20 A Yes, the Python script allows the developer to set
21 things such as their name that they created the document,
22 yes.

23 Q I want to go to the extraction of Jen McCabe's phone
24 that you talked about on direct examination. Is the hash
25 value signed or unsigned?

1 A A hash value isn't signed. I believe the question
2 you're asking me is the Adobe document that contained - the
3 PDF that contained the hash value? So you're ask me if
4 that's signed because a hash value is something that
5 matches. A hash value isn't signed.

6 Q Let me ask it this way. Is there any hash value
7 associated with Jen McCabe's phone that is unsigned?

8 A That is not a valid question. I apologize. We don't
9 refer to hash values as being signed or unsigned. We would
10 refer to the PDF that contains that value as being signed
11 or unsigned.

12 Q Have you ever read a report of Mr. Ian Whiffin in this
13 case?

14 A I have, but I have to be clear I have not read all of
15 Ian's reports, I've only read some so I don't know -- I've
16 read some of his earlier reports.

17 Q Do you recall reading a report of Mr. Whiffin where he
18 references a hash value being unsigned associated with the
19 iPhone of Jennifer McCabe?

20 A Can I see said report so I can validate if I did or did
21 not? I'm not sure based on just that, because I wouldn't -
22 - I wouldn't use the term hash value being signed. I did
23 see a report in which Mr. Whiffin spoke to the PDF not
24 being signed.

1 Q I want to try to shortcut this and work off your last
2 statement. You're now saying you do recall seeing a report
3 of Mr. women where he said a PDF was unsigned?

4 A I need to see -- I do remember him referencing the PDF.
5 I would need to see the report, especially since the
6 characterization of hash value being unsigned is not a term
7 of art that I am familiar with in our field.

8 Q Let me ask you if you agree or disagree with this
9 statement. "This value can be used to compare with the
10 original hash calculated at the time of extraction in order
11 to validate the extraction data. However, this requires
12 authentication of the original hash value which is not
13 possible with GrayKey extractions as the PDF containing the
14 extraction hash value is unsigned. Therefore, this hash
15 value could be used as a suggestion of authentication, but
16 cannot be guaranteed 100 percent."

17 Do you agree or disagree?

18 A His statement there says the PDF is unsigned, not that
19 the hash value is unsigned.

20 Q Right. But it's nonetheless unsigned, correct?

21 A The PDF is not signed. That is a correct statement.
22 GrayKey PDFs that purport that value or not in Adobe signed
23 document.

24 Q Do you know the history from the -- of the extraction
25 of Jen McCabe's phone; it's a yes or no?

1 A Can you provide more clarity? Do you mean from the
2 time the image was made? Do you mean from the time the
3 device was received, because I don't know the information
4 pertaining to the receipt of the device into evidence, and
5 then when the -- I only have the documentation of the image
6 forward. So I want to be clear about what period we're
7 talking about.

8 Q It's an excellent point, and I am going to follow up
9 with some questions.

10 A Okay.

11 Q And an extraction, doesn't the extraction from the
12 phone start with the raw data, raw image. You tell me when
13 someone brings a phone in, what's the first step that gets
14 taken in order to do a full file extraction? What's the
15 first step?

16 A It depends. There has got to be steps with regard to
17 network isolation. I need to know if the device is AFU or
18 BFU at that point. So I don't have that information from
19 this case if that is the question. I get from the image
20 forward.

21 Q So what I'd like to do, and this may be my last section
22 of questioning. I'd like you to describe the ideal
23 situation as to getting the most reliable data from an
24 iPhone from the start. What's the most reliable way to do
25 it?

1 A I would say the most reliable way is following the
2 recently released SWIG-DE Scientific Working Group on
3 Digital Evidence document on best practices of evidence
4 handling preservation and imaging. I may have that title
5 slightly out of order, but it is a document released this
6 January.

7 Q And tell me what that is.

8 A Sure. In that, the first thing -- from which point are
9 we starting? Are we starting, like, extracting the data,
10 using a tool, or are we talking on scene taking the device
11 into evidence?

12 Q The latter.

13 A Okay. So the first thing you're going to do is you're
14 going to ensure that you are isolating the device. This is
15 also going to depend on condition from the network. So
16 typically this would be done with a Faraday enclosure in a
17 best practice, however, there are alternative ways of
18 isolating from the network, such as disabling all of the
19 communication protocols such as Wi-Fi, airplane mode, et
20 cetera.

21 The next step once you've isolated out -- you also want
22 to make sure you're continuing battery stat. So if the
23 device is on, you want to keep it powered on. If it's off,
24 you want to keep it powered off. That's the general
25 statement.

1 So the best way to do that is to attach a battery
2 charger just like when you -- your battery runs low, you
3 plug in a charger in the back of these battery packs. We
4 do that before we put it in the Faraday bag. A Faraday bag
5 is an enclosure that blocks signals from coming to the
6 device. This is so a remote wipe command couldn't be sent
7 or so that more data isn't received to the phone because
8 phones are live and constantly obtaining data. So we're
9 going to have it with a battery pack in the Faraday,
10 presuming it was on. Again I don't know the status of this
11 device.

12 The next steps are going to depend on what state that
13 device is and what make and model that device is, and what
14 the current support for that device is. There are multiple
15 types of extraction methods of phones. In the modern-day
16 on iOS, a full file image, what we had on the device is in
17 question in this case is considered the gold standard
18 because it has the most robust information.

19 So at this point, the next question is what's the best
20 image type, and that's going to depend on if we have the
21 passcode or if we don't have a passcode.

22 Q If I could?

23 A Please.

24 Q And I'm going to allow you to --

25 A Yeah, please, please.

1 Q I want to break it down for the jury. So what I now
2 want to do, you stopped at a certain point, but we've
3 talked about securing -- what I would call securing the
4 phone, right, and then making sure that there's note data
5 swiped. You talked about airplane mode, Faraday bag,
6 Faraday box, right?

7 Do you know whether any of those protocols were
8 followed for either the iPhone of Jen McCabe or John
9 O'Keefe?

10 A As I mentioned, I was not there for those processes. I
11 don't have documentation of it. As mentioned, what started
12 were my receipt of the device is from the image.

13 Q Exactly. So you don't know?

14 A I can't testify to processes I did not or was not
15 available or aware of.

16 Q Fair enough. But do you have a little bit of hint as
17 to whether the phone of Mr. John O'Keefe was properly
18 secured in airplane mode, a Faraday bag, or a Faraday box
19 based upon your own report of the iPhone of John McCabe?
20 Can you determine that from page 5 of your report?

21 A Obviously, there is data signals that are still being
22 made and created. I believe that is what you are referring
23 to. So the assumption is that I don't know at which point
24 a Faraday bag is employed, but I also want to be clear, I
25 don't know when -- I don't have information outside of the

1 digital forensics realm about this case, so I don't know
2 precisely when the phone was taken into custody by law
3 enforcement.

4 Q Fair enough. So assume that Mr. O'Keefe was deceased
5 around the latest 9:00 a.m. on January 29, 2022, isn't
6 there activity on that phone - health data activity - up to
7 around noon of January 29, 2022?

8 A Health data activity would continue to be reported
9 regardless if the device was isolated from the network or
10 not. Health data has to do with the movement of the device,
11 so if the device was being moved, even within a Faraday
12 bag, that data would still be populated.

13 Q How about location data?

14 A Location data is unlikely to be reported in a device
15 that is Faraday enclosed, but I do know what location data
16 you're referring to, so I cannot speak in absolutes without
17 having a better reference to the artifacts in question. If
18 you're saying it's in my report, I'll look at it. But,
19 again, I never knew when the phone was seized, so it was
20 not part of my initial analysis.

21 Do I have permission to look at that time, ma'am?

22 THE COURT: Yes.

23 THE WITNESS: Thank you, Your Honor. So bear with me,
24 it's a big report, as you know.

25 Q It is a big report.

1 A And it was at the bottom of my stack.

2 Q Pardon me?

3 A It was at the bottom of my stack. I had to lift up the
4 other ones to find it. All right.

5 So --

6 MR. ALESSI: Your Honor, may I assist and point her to
7 a page?

8 THE COURT: Sure.

9 THE WITNESS: That would be great.

10 Q If you could turn to that report on your page 47, and
11 continue on to page 50?

12 A I do see incoming data that is consistent with the
13 device not being Faradayed such as the receipt of SMS
14 messages, notifications from Ring, et cetera.

15 Q So the iPhone of Mr. O'Keefe was not secured in a
16 manner you described before we got into this as would be
17 the best practice with regard to getting the most accurate
18 data from the phone. That is once it comes in, that it's
19 to be either put in airplane mode, Faraday bag or a Faraday
20 box; is that correct? By your own report, you see
21 activity --

22 A I do see activity. It was not Faradayed. Faraday
23 prevents wiping of the device and additional data. So
24 actually we actually in this instance, it doesn't appear
25 that the device was at risk of wipe because it was not

1 wiped, and we actually have more data because we get to see
2 the data that continued to come into the device. I'm not
3 saying that's in accordance with best practice. I'm saying
4 that's what I see based off of what you just had me review
5 in the data.

6 Q It sounds like you're trying to justify --

7 A Oh, I'm not trying to justify --

8 Q You tell me. It sounds like you're trying to justify
9 the fact that it wasn't secured; am I correct?

10 A No, you're incorrect. I'm just state we have -- you
11 asked if we had more data or less data. We actually have
12 more data with it not being Faradayed, but, no, best
13 practice would be to Faraday. I one hundred percent agree.

14 Q My question wasn't is there more or less data. My
15 question was simply doesn't your own report, your own
16 report --

17 A Sure.

18 Q -- show activity up until noon on January 29, 2022?

19 A Correct. And for clarity, my scope was until noon, so
20 I don't know if there was activity beyond that.

21 Q Right. But as far as your scope goes, I want to be
22 clear, there is activity --

23 A Absolutely.

24 Q -- on the phone?

25 A Absolutely, the phone --

1 Q -- which shows that it was not put in airplane mode, it
2 was not put in a Faraday bag, and it was not put in a
3 Faraday box, and that failure is not best practices?

4 A Correct. It is not in accordance with the best
5 practices. I agree. I would have Faradayed it.

6 Q Thank you. So --

7 A If I, you know, presuming --

8 Q That's all. I have am no further questions. Thank you
9 for answering my questions, Ms. Hyde.

10 A Thank you for your questions. Have a great day.

11 THE COURT: All right. Mr. Brennan, any redirect?

12 MR. BRENNAN: Thank you.

13 THE COURT: Whenever you're ready.

14 MR. ALESSI: Thank you, Mr. Brennan.

15 MR. BRENNAN: You're welcome.

16 **REDIRECT EXAMINATION**

17 **BY MR. BRENNAN:**

18 Q You were asked when you began working on analyzing
19 phones in this case and said it was in May. Was that in
20 May of 2023?

21 A May of 2023. May 4, 2023, is the email I have of the
22 note. Thank you, yes. It's easy to remember because, "May
23 the 4th be with you."

24 Q When you first began work on this case in May of 2023,
25 what was the catalyst for you to begin working on this?

1 A I was contacted by Mr. Tully and then contracted, a SAL
2 was signed, and I began work on the initial request to look
3 at those two search terms on January 29. Does that answer
4 your question?

5 Q Sure.

6 A Okay.

7 Q Was there a certain claim that was lodged that you were
8 to focus on?

9 A I was to focus on the two search terms from January 29,
10 2022.

11 Q And were you informed why? Was there any context to
12 that?

13 A Probably, I don't recall the exact conversation that I
14 had with the DA's office and Lieutenant Tully at that time,
15 but I'm assuming that I was given that context. I have in
16 my notes that I was to look at those two searches on that
17 date and do an analysis about those.

18 Q Were you asked to reach any particular result?

19 A No, I was asked to provide my report, not to reach a
20 particular result.

21 Q Were you asked to reach a conclusion that the 2:27 time
22 stamp was inaccurate?

23 A No.

24 Q When you engaged in your analysis, was it independent
25 of the district attorney's office?

1 A My analysis was independent of the district attorney's
2 office. I actually, in the first case, had very little
3 communication with the district attorney's office during
4 the period of my analysis.

5 Q Was there any input from any outside source on what
6 your results or ultimate opinions would be?

7 A No.

8 Q Would you ever allow anybody to affect your input?

9 A No.

10 Q Throughout the course of your efforts with this phone,
11 have there been changes to software?

12 A Absolutely. As mentioned on direct, software updates
13 are near monthly.

14 Q I want to ask you about changes to the Cellebrite
15 software. You were asked about certain reports you wrote.
16 Were the reports that you wrote relative to different
17 requests for analysis?

18 A Yes.

19 Q The report regarding, report number three, regarding
20 changes to Cellebrite software, was that report limited to
21 the time stamp change or was it to include other efforts?

22 A The scope of report that report, may I review what I
23 have documented as the scope?

24 Q Please.

1 A I believe we're talking about report two. That's the
2 one about the Cellebrite change?

3 Q Yes.

4 A And I have the request was to understand changes made
5 in a newer version of Cellebrite Physical Analyzer to
6 artifacts pertaining to the timeline of a particular Google
7 search on January 29, 2022, namely "hos long to die in
8 cold".

9 Q When you looked at the Cellebrite software in the
10 report, was the time stamp characterization changed or
11 removed?

12 A Yes, it was removed. That time stamp in the version
13 starting in May of 2024, Cellebrite actually removed that
14 and they put a release note stating that it was due to the
15 ambiguity and potential for misconstruing the meaning of
16 that data.

17 Q Was there any other releases informing other reasons
18 why that was changed other than the potential that somebody
19 could misconstrue, misinterpret, or distort the
20 information?

21 A Can I read Cellebrite's own statement?

22 Q Please.

23 A Cellebrite statement in --

24 MR. ALESSI: Objection, Your Honor.

25 THE COURT: To yourself.

1 THE WITNESS: To myself? Okay. Roger that. Thank you.
2 I appreciate that.

3 A Can you repeat the question now?

4 Q Was there any reason other than the concern about
5 misinterpreting --

6 A They said that --

7 MR. ALESSI: Objection, Your Honor. They said.

8 THE COURT: Okay. So what's your understanding?

9 A My understanding is that it is not a reliable time
10 stamp, and that is why Cellebrite removed it.

11 Q You were asked about Axiom. Axiom, is it the same or
12 different?

13 A Magnet Axiom and Cellebrite Physical Analyzer are two
14 different tools that both do forensic analysis of mobile
15 phones.

16 Q You were asked whether Axiom still has a time stamp
17 that was similar to Cellebrite before the change.

18 A Axiom shows what I spoke to on direct where they have
19 it as a parsed versus carved result, and so that particular
20 result shows in the suspended state DB artifact as carved.

21 Q Do companies like Axiom and Cellebrite give you
22 releases, updates, information about how to interpret their
23 reports?

24 A So Axiom actually has a document that's released with
25 it called "The Artifact Reference Guide" and that actually

1 gives a brief description of the fields and of artifacts.
2 All tools when they release new artifacts, they put out
3 inner release notes. Not all artifacts are clearly
4 documented that are parsed, however, all of the vendors
5 regularly put out webinars and blog posts that explain
6 their new artifacts, but not necessarily all.

7 Q Is there any releases of cautions from Axiom on the
8 same issue about misinterpreting a time stamp?

9 A Axiom in their artifact reference guide for this
10 artifact does speak to the possibility of misinterpretation
11 and states that the time stamp can be earlier than the
12 search had occurred based on what different reasons could
13 cause that time stamp.

14 Q Let me ask you about a Faraday bag. You said that best
15 practices is to isolate an item in a Faraday bag?

16 A That's correct.

17 Q Do you have any information or did you know the travel
18 of Mr. O'Keefe's phone that night or where it went after?

19 A I'm sorry. Can you clarify the time period?

20 Q On January 29, 2022, from say 6:04 in the morning until
21 later that afternoon?

22 A I did not have access to that information.

23 Q When you analyzed data from certain devices, are they
24 always placed in a Faraday bag immediately after an
25 incident?

1 A There's a lot of times when this is situation
2 dependent. An example of when you would not put something
3 in a Faraday bag is when you have a deceased victim, and
4 you're going to be using their biometrics to possibly
5 unlock the device. Because a Faraday bag is enclosed and
6 it can't be opened, if your intent if you don't have the
7 password is to use a deceased person's fingerprint to
8 unlock the phone, we don't want to put the person's finger
9 in the Faraday bag, so usually those phones would not be
10 Faradayed, but they would typically have airplane mode
11 enabled or SIM card removed. But, no, SIM card removed
12 doesn't actually work in iOS, so I won't get into that.

13 Q Understanding or having an opinion that this item was
14 not placed in a Faraday bag at 6:04 in the morning, does
15 that in any way affect your opinion about the data that you
16 analyzed on this phone and the conclusions that you reached
17 regarding Mr. O'Keefe's phone?

18 A It does not have any impact on the conclusions other
19 than the fact that it wasn't Faradayed and more data came
20 in. So we have additional data.

21 Q You were asked a very specific question about history
22 DB, and it was simply whether or not "hos long to die in
23 cold" whether it appeared in history DB. From that
24 isolated question, does that provide any context to you in
25 your analysis or conclusions about "how long to die in

1 cold" and that it occurred at 6:23 and 6:24 the next
2 morning?

3 A The absence of the history DB artifact doesn't mean
4 that that search didn't occur at that time. We have
5 multiple corroborating artifacts which is usually what we
6 look for to artifacts that demonstrate is, like, very good.
7 You don't necessarily need that, but in this instance, we
8 have both from the mobile Safari P list, which tracks a
9 history as well as the knowledge C DB. So we do have two
10 artifacts showing that those searches were done at that
11 time, of course, six seconds apart for the difference
12 between the knowledge C and the mobile Safari P list.

13 Q On direct examination, you were not asked questions
14 about Mr. O'Keefe's phone?

15 A That is correct.

16 Q You weren't on cross-examination, so let me follow-up.
17 You have a report that you authored regarding Mr. O'Keefe's
18 phone?

19 A That is correct.

20 Q And you had an opportunity to look at the healthcare
21 data for July -- I'm sorry -- January 29, 2022?

22 A That is correct.

23 Q Page 6 of your report.

24 A Thank you.

1 Q You noted that there were steps that began at 12:11:09
2 a.m., is that accurate?

3 A That is accurate.

4 Q And the way healthcare data works, do you have an
5 understanding whether steps means a person actually took a
6 number of steps or does it mean something else?

7 A Steps doesn't necessarily mean that you took a number
8 of steps. It's based on the motion of the device. So it
9 could be steps, it could be you're carrying it. It could
10 be that you're in some other kind of motion. You could be
11 on a bicycle. You could -- any number of things. And the
12 number of steps is based on the presumed gait based on the
13 input into the Apple health app in terms of gender and
14 height. So it determines a gait and then prescribes a
15 number of steps, but it is possible for other things to
16 cause steps to occur.

17 Q You were asked specifically if you saw that there were
18 reported movement or health steps at 12:21:10 a.m. and
19 specifically pointed out to you a notation or a
20 characterization of 80 steps; is that accurate?

21 A That is what's stored in the database. I try to
22 clarify, as I did for you, sir, that that's what stored in
23 the database. I'm not saying that 80 steps were taken.

24 Q And by the way, in addition to the healthcare analysis,
25 you did some analysis on the movement of a car, didn't you?

1 MR. ALESSI: Objection, Your Honor.

2 THE COURT: I'm going to deny that question.

3 Sustained.

4 Q Can these health steps occur if somebody's holding a
5 phone while traveling in a car?

6 A As mentioned in my report, it's caused by motion. It
7 could be various motions that could cause it. You could
8 using an elliptical. You could be in a vehicle. You could
9 be on a bicycle. It's not necessarily steps taken.

10 Q Based on your analysis of Mr. O'Keefe's phone and the
11 report that was pointed out to you in cross-examination, do
12 you have information or an opinion where Mr. O'Keefe's
13 phone was located around 12:21:10 while those steps
14 registered?

15 MR. ALESSI: Objection, Your Honor. Scope.

16 THE COURT: I think that's beyond the scope of the
17 cross, Mr. Brennan.

18 Q It was pointed out to you at 12:21:10 there a
19 registered 80 steps; is that accurate?

20 A That is correct.

21 Q And then you were also asked about the last healthcare
22 data, the last movements of this phone, and it was pointed
23 out that that began at 12:31:56 and 20 seconds?

24 A That's correct, per the data in the database.

1 Q And is that the last movement of Mr. O'Keefe's phone
2 that evening before 6:04 that you saw when you analyzed the
3 entire data in the phone?

4 A May I have one moment to review?

5 THE COURT: Yes.

6 A That appears to be the last before 6:00 a.m. hour.

7 Q So that 20 seconds, if it began at 12:31:56, what was
8 the last movement in seconds and time that that time of Mr.
9 O'Keefe's phone?

10 A I'm sorry. Can you repeat?

11 Q Yes. If that was a 20 second interval --

12 A That's correct.

13 Q -- at 12:31:56, what was the last second that evening
14 that Mr. O'Keefe's phone moved?

15 A 12:32:16.

16 Q And then when you analyzed the phone and were asked
17 about these times, is there any movement between that last
18 movement and 6:04:01?

19 A Between the 12:32?

20 Q Yes, 12:32:16 and 6:04:01, any movement in that phone
21 whatsoever?

22 A I do not have anything supporting that in my report.

23 Q Do you know what was going on with Mr. O'Keefe's phone
24 at 6:04:01 a.m. on the morning of January 29, 2022?

1 A I do not know precisely what was happening with his
2 phone at that time in terms of movement, if that's -- or
3 are you asking me -- I'm sorry. Can you clarify what you
4 mean by the question?

5 Q The next moment after 12:32 --

6 A Is the 6:04.

7 Q -- 6:04:01 --

8 A Correct.

9 Q -- a.m.?

10 A Correct.

11 Q Do you have any information about where or why there
12 was movement in the phone at that time?

13 A I don't. That wouldn't be inside my digital evidence, I
14 don't believe.

15 Q And the last question is, the next moment at 6:15:14,
16 do you know if that phone was being moved by somebody or
17 somebody else than Mr. O'Keefe?

18 A The phone was in motion. I do not know if -- it could
19 be but a person. It could be on a rail car. I don't think
20 it was on a rail car for clarity, but I don't know what is
21 causing that motion at that time.

22 MR. BRENNAN: Thank you very much.

23 THE COURT: Any follow-up, Mr. Alessi?

24 MR. ALESSI: Yes, please, Your Honor. May I have a
25 moment, Your Honor?

1 THE COURT: Yes.

2 MR. ALESSI: Excuse me, Mr. Brennan, your notes.

3 MR. BRENNAN: Oh, thank you.

4 **RECROSS-EXAMINATION**

5 **BY MR. ALESSI:**

6 Q Ms. Hyde, you were asked questions by Mr. Brennan just
7 moments ago about Cellebrite and release notes. Do you
8 recall those questions?

9 A Yes.

10 Q And did Cellebrite, beyond stating that their opinion
11 was the 2:20:40 a.m. time stamp was not reliable, did it
12 give any reason at all for why they concluded it was not
13 reliable in that -- I'm sorry. We'll wait for the --
14 (Sirens in background.)

15 A Thank you. I appreciate it.

16 MR. ALESSI: May I, Your Honor?

17 THE COURT: Go ahead, Mr. Alessi.

18 MR. ALESSI: Thank you.

19 Q In that release note, does Cellebrite state any reason
20 for why they wrote not a reliable time stamp?

21 A There are other published but not Cellebrite.

22 Q Sorry. My question is in the release note, whether
23 there's a reason for why they concluded --

24 THE WITNESS: May I look at the release note, ma'am?

25 THE COURT: Yes.

1 THE WITNESS: Thank you, Your Honor.

2 THE COURT: Please not try to talk over each other.

3 MR. ALESSI: I will.

4 Q I'm not asking you to read it. Just asking whether or
5 not they give any reason for the conclusion, "not a
6 reliable time stamp."

7 A One moment. I'd like to review what they wrote. Thank
8 you. Q You're welcome.

9 A Yes, they do. They state that further research since
10 is the reason that they're doing it. That there is further
11 research.

12 Q Did they state what that research is?

13 A They don't, but --

14 Q All right. They don't state what the further research
15 is?

16 A That is correct. They state that it's unreliable.

17 Q I'd like to move onto Axiom. You were asked questions
18 by Attorney Brennan, and you referred to Axiom as using a
19 different parlance of with a time stamp of carved, correct?

20 A Cellebrite uses this deleted demarcation or recovered
21 demarcation. Axiom does not do that at all. They speak to
22 how they recovered the artifact, be it that it was parsed.
23 When I say parsed, I mean the item was where it was
24 expected to be in the algorithm, found it, located it, and
25 said it's here, versus carved which is when they have to go

1 into an unexpected area such as slack space which would be
2 the areas that are not yet used or were previously used to
3 extract the data from that.

4 Q So Axiom actually recovers the time stamp, but
5 Cellebrite does not; is that correct? Is that correct?

6 A Yes, Cellebrite currently. Currently. Previously,
7 when we did the first case, it was the opposite. Correct.

8 Q But currently, Cellebrite doesn't but Axiom does --

9 A Correct.

10 Q -- Axiom recovers 2:27:40 a.m., correct, time stamp?

11 A That is the time stamp that they show for that
12 artifact, correct.

13 Q Exactly. So now I'd like to go back to next topic.
14 Our discussion about Mr. O'Keefe's phone and secured or
15 not.

16 You talk about one example about of maybe needing to
17 use a biometric to unlock the phone and that might be a
18 reason, as I understand it, as to why someone might not put
19 it in a Faraday bag or box; do I have that correct?

20 A Correct.

21 Q Okay. Do you know whether the passcode was immediately
22 provided on the phone of Mr. O'Keefe?

23 A I do not have that information.

24 Q Assume that the passcode was immediately provided for
25 the phone of Mr. O'Keefe, can you think of any other reason

1 why that phone wouldn't be put in airplane mode, Faraday
2 bag, or Faraday box?

3 A Best practice would be to put it in a Faraday bag.

4 Q Okay. And that phone was obviously not put in airplane
5 mode, Faraday box or Faraday bag after 6:04 a.m. on January
6 29, 2022, correct?

7 A Correct.

8 Q Now let's go to --

9 A Well, I don't know if at some point past 12 o'clock.
10 My report only goes to noon, so just for clarity I don't
11 know anything past noon.

12 Q Fair enough. But from 6:04 a.m. until approximately
13 noon --

14 A Correct.

15 Q -- on January 29, 2022, at least that time that phone
16 is not in airplane mode, in a Faraday bag or a Faraday box,
17 correct?

18 A It would appear such. Because I didn't analyze past
19 that, I don't know if it had been potentially Faradayed and
20 then it broke Faraday and got data, but I don't suspect
21 that based on this. It appears that that data was live.
22 But I just have to speak to the fact that I just don't know
23 because I didn't go past noon.

24 Q You're going past noon.

25 A Right.

1 Q I'm not.

2 A Okay. Yeah, 6:00 a.m. to noon, it does not appear to
3 be Faradayed.

4 Q So to be clear, from 6:04 a.m. on January 29, 2022,
5 until at least noon of January 29, 2022, the iPhone of Mr.
6 O'Keefe is not in airplane mode it's not in a Faraday bag
7 and it's not a Faraday box, correct?

8 A Unless it was in a broken Faraday bag like they put it
9 and it was failing, but, yeah, it does not appear to be
10 have been placed in a Faraday bag.

11 Q All right.

12 A I'm just being honest. You should test your Faraday
13 bags. They go bad. I use Dr. Katz testing methodology,
14 but it 100 percent it appears to have been receiving signal
15 for that entire period and not in a Faraday bag, which
16 would be best practice unless biometrics were needed.

17 Q So let's now go to hopefully what are the last two
18 categories of questions.

19 With regard to the iPhone of Jen McCabe, do you have
20 any knowledge as to whether over 200 calls were auto
21 deleted on her phone? You analyzed it.

22 A Can -- we can see that calls were auto deleted. You're
23 asking me if the number -- I just want to make sure I
24 understand the question. If the number of calls that were
25 auto deleted, if that exceeded 200?

1 Q My question is do you know whether there was auto
2 deletions on Jen McCabe's phone; do you know that?

3 A I'm uncomfortable with the term auto deletions because
4 I don't know what that is inferring.

5 Q Okay. Did you analyze her phone at all for deletions?

6 A I analyzed her phone to see if there had been deletions
7 of call logs and what I found was that there were records
8 that were removed by the system and not recoverable from
9 that database but were recoverable from biomes.

10 Q Understood. Now what I'd like to do is to address your
11 answer in response to Mr. Brennan's questions where you
12 said that the issue with regard to Mr. O'Keefe's -- or just
13 generally your proposition, that there was no impact on
14 your conclusion because more data had been obtained. Did I
15 get that correct?

16 A I believe my statement was there was no impact on my
17 conclusion with the fact that it had not been in a Faraday.

18 Q Right. So isn't it, though, the case that when a phone
19 is not in a Faraday, it is, therefore, active, data can be
20 overwritten?

21 A Yes.

22 Q So, so if data can be overwritten when it's not in a
23 Faraday, you can lose that data, correct?

24 A Is there data that we're concerned? Yes,
25 theoretically. Yes.

1 Q All right. You talked about in response to Attorney
2 Brennan, the 12:31:56 status, and you said the last,
3 according to you, the last movement 12:32:16; do you recall
4 those questions?

5 A I recall the questions.

6 Q To boil it down, isn't it correct that that phone was
7 moving at that time?

8 A May I check the time stamp again? I apologize. There's
9 a lot of time stamps going back and forth.

10 Q Please do.

11 A 12:31:56, is that the --

12 Q Yes, that's a start, yep.

13 A Oh, yes, this one they're definitely is, yes, yes, yes.

14 Q So does it matter what kind of movement, that phone was
15 moving starting at 12:31:56 and still moving until 12:32:16
16 a.m. on January 29, 2022, correct?

17 A Yes.

18 Q Thank you. Appreciate again you answering my questions.

19 A Thank you.

20 THE COURT: All right, Ms. Hyde, you are all set.

21 THE WITNESS: Thank you, Your Honor.

22 THE COURT: Can I see counsel about scheduling for a
23 minute? Jurors, feel free to stand up and stretch.

24 (Sidebar commences:

1 THE COURT: So is your next witness still a long
2 witness?

3 MR. BRENNAN: Very long witness.

4 THE COURT: Do you want to start? Are we on schedule?

5 MR. BRENNAN: We're very much ahead of schedule, and
6 that's something we should briefly discuss.

7 THE COURT: All right. So maybe I'll let the jurors go
8 and we can figure out scheduling.

9 MR. BRENNAN: Okay. Does that work?

10 MR. JACKSON: Sure, yeah.

11 MR. BRENNAN: I want to play one clip before we end.

12 THE COURT: Okay.

13 end of sidebar.)

14 THE COURT: Thank you, jurors.

15 MR. BRENNAN: May I?

16 THE COURT: Yes.

17 MR. BRENNAN: I would like to play clip 15, please.

18 THE COURT: Okay.

19 (Whereupon Clip 15 was played.)

20 THE COURT: All right. So, folks, I talked to the
21 lawyers briefly about scheduling at sidebar, and I'm told
22 we're actually ahead of schedule. So with that rather than
23 beginning a witness who's probably going to take a while,
24 we may as well as let you go and enjoy the rest of this
25 beautiful afternoon.

1 So we're on schedule, ahead of schedule, we'll
2 reevaluate that tomorrow, and I will see the lawyers at
3 sidebar as the jurors walk out, so we can talk a little bit
4 about scheduling.

5 Those same cautions, please. Do not discuss this case
6 with anyone. Don't do any independent research or
7 investigation into this case. If you happen to see, hear,
8 or read anything about this case, please disregard it, and
9 let us know. And be very careful about your social media
10 use. We'll see you tomorrow morning. Thank you.

11 (Jury out.)

12 THE COURT: All right. Why don't you come on up?

13 (Sidebar commences:

14 THE COURT: All right. So we'll talk about scheduling.
15 I have a copy of 687, Commonwealth's certified petition for
16 certificate of materiality of out-of-state witness. I'm
17 inclined to just allow it. The defense, you don't need to
18 be heard on this, do you?

19 MR. ALESSI: I'm sorry, your questions, Your Honor.

20 THE COURT: Just to get the out-of-state witness here.
21 It's just process that's typical. All right. So I'll sign
22 it. That will be allowed.

23 MS. LAUGHLIN: Mr. Clerk, it does need to be hand
24 stamped and certified.

1 THE COURT: Attested to and all of that. That's why we
2 need the original.

3 | All right. So what do you want to tell me?

4 MR. ALESSI: I'm just for clarification. Those are
5 just marked for ID? Is that what we're talk about, or are
6 we talking about evidence?

7 THE COURT: It's not evidence. This is to get an out-
8 of-state witness here. Everything's been done. I just
9 need to sign off on it.

10 MR. ALESSI: Got it. Thank you.

11 THE COURT: I had you here. I didn't want to do
12 anything that I could do in front of you without --

13 MR. ALESSI: I know. I understand.

14 THE COURT: All right. And we are going to mark clip 15
15 as evidence. And you'll tell us the number.

16 THE COURT REPORTER: Exhibit 83.

17 (Whereupon Exhibit No. 83, Clip 15, was marked as an
18 exhibit.)

19 MR. ALESSI: 83, Your Honor.

20 THE COURT: All right. What do you want to tell me
21 about scheduling?

22 MR. BRENNAN: We have Trooper Bukhenik who we'll start
23 with tomorrow. I think he'll be maybe two and a half hours
24 on direct examination. I don't want to be presumptuous,
25 but I expect he'll be a long cross-examination.

1 THE COURT: Who's doing the cross of Trooper Bukhenik?

2 MR. YANNETTI: Mr. Jackson.

3 THE COURT: Okay. Long cross-examination?

4 MR. JACKSON: Probably.

5 THE COURT: Okay. Will it get us through the day
6 tomorrow?

7 MR. JACKSON: I don't know if it would get us through
8 the entire day. If Mr. Brennan is going to get us through
9 lunch, I'm guessing that I'll be a couple of hours.

10 THE COURT: Which is probably almost --

11 MR. BRENNAN: We will try to bring some lab people in
12 as well. The defense may be stipulating to some of our
13 officers who just introduced photographs which will
14 expedite things if we can come to an agreement as well.

15 MR. YANNETTI: We'll talk about that tonight.

16 MR. BRENNAN: We're going to try to get do the staff,
17 all of the rest of the lab people that we can get here
18 Friday.

19 THE COURT: Okay.

20 MR. BRENNAN: There was a witness from Bode that cannot
21 come until next week.

22 THE COURT: Okay.

23 MR. BRENNAN: And there is an effort we have Dr. Wolfe.

24 THE COURT: Okay.

25 MR. BRENNAN: He cannot appear until next Wednesday.

1 THE COURT: Okay.

2 MR. BRENNAN: The medical examiner is scheduled for
3 Monday? We're working on scheduling the medical examiner
4 for Monday.

5 THE COURT: Okay.

6 MR. BRENNAN: We still have part of the accident
7 reconstruction team which is Shannon Burgess. I can bring
8 him in anytime next week. As you know, our expert is away.
9 We have still not received the ARCCA report. We received
10 the data but not the report. So he hasn't even had a chance
11 to even look at a report yet.

12 MS. LITTLE: I have it. I just haven't had a chance to
13 forward it to them, so I just received it. So they'll have
14 it before the end of the day. It was due today.

15 THE COURT: Right. How long is it?

16 MS. LITTLE: I literally have -- I just got it, so I'm
17 not sure.

18 MR. BRENNAN: So we'll need time for our expert to look
19 at that and digest it. It's my expectation to not ask for a
20 continuance during the trial. We are going to ask that he
21 be able to testify and then be allowed to look at the
22 information and then return for rebuttal after he's had a
23 chance to review the information because there's no way
24 he's going to be able to testify next week and digest that
25 before he conducts any tests that he wants to conduct, and

1 contemplate all the evidence in that massive amount of data
2 that they've given us.

3 MR. ALESSI: We would not agree to having him come in
4 testify and then get to read the report and then come in
5 rebuttal.

6 THE COURT: He's got to read the report first.

7 MR. ALESSI: Understood. Exactly.

8 THE COURT: But in order to digest it --

9 MR. ALESSI: I'm okay with that a reasonable amount of
10 time to digest it, I'm fine with that.

11 MR. BRENNAN: Part of the difficulty is we don't have
12 that time. As their witness has said, when they have new
13 information of this size, they give a month to look at it,
14 test it, and vet it and write a report. He's not going to
15 have a month, and I'm not going to ask for a month
16 continuance. It's not practical, but he should have the
17 right to look at it; consider it, if there's limited
18 testing, he should be able to do that. I'm not looking for
19 him to rebut the original report, but anything that is new
20 that we still haven't received the report for if we're
21 going to have him testify timely and fairly, he should be
22 able to come back to address all of the new information
23 after in rebuttal.

24 THE COURT: So I agree that he needs time to digest it.
25 I think we're putting the cart before the horse here. He

1 hasn't seen it yet. You haven't seen it yet. He may, as we
2 know, we know some experts can go through 500 pages and
3 say, yeah, I'm okay. So let's find out from him -- Fair
4 enough.

5 THE COURT: -- what he needs and then we can have a
6 hearing on what he needs and what the appropriate remedy
7 is.

8 MR. BRENNAN: I think that's fair. I was just trying
9 to get the scheduling -- I'm trying to get the
10 Commonwealth's case done as quickly as possible so that's
11 why I raised it.

12 THE COURT: Okay.

13 MS. LAUGHLIN: And, Your Honor, we do anticipate having
14 a juvenile witness here on Friday to testify. If permitted
15 by the Court, we would like that witness to be able to
16 begin at 9:00 a.m. if that means interrupting a certain
17 witness, but to have this witness go early in the morning
18 so they can return back to school.

19 THE COURT: Okay. So I will make every effort to
20 accommodate this witness. I don't like, as you know it
21 worked out fine with Trooper Guarino were there was no
22 cross, but I just -- not in a criminal case, as you know.

23 MS. LAUGHLIN: Yes, we can make accommodations and I
24 understand the Court to appreciate the accommodations just
25 with media, cameras, and things like that --

1 THE COURT: Right. I issued an order last year.
2 Everybody has to be out -- well, I'll look at the order. I
3 think the order was no filming and no recording. I think
4 they reported on the demeanor of the child.

5 MS. LAUGHLIN: Similar no still photographs.

6 THE COURT: No photographs. No photographs. So I'll
7 look at that. We'll make very clear with the media. It
8 may need that we need to suspend early on Thursday, which I
9 don't really want to do, and put off the cross-examination
10 if that's what it is. We'll try to find an appropriate
11 spot to stop.

12 MS. LAUGHLIN: Sometime Friday morning would be
13 preferable. It doesn't need to be 9:00 a.m. but in that
14 early morning.

15 THE COURT: As early as possible.

16 MR. ALESSI: May I ask Mr. Brennan a quick question on
17 scheduling?

18 THE COURT: Okay.

19 MR. ALESSI: Mr. Brennan, on your medical examiner, you
20 said Monday. Is there any chance before Monday?

21 MR. BRENNAN: I would prefer to have her here Friday,
22 but I don't know that we can get here Friday and I don't
23 know what's going to happen with the juvenile. So if we
24 can get her Monday, I think we'll do Monday, but if we can

1 put her on Friday, I'm open to it. I just don't know if
2 she can be here. So we're asking.

3 MR. ALESSI: Fair enough.

4 THE COURT: So plan on Friday.

5 MR. ALESSI: That's what I'm going to do.

6 MR. BRENNAN: So suffice to say, I wanted to alert the
7 Court that we're moving with alacrity.

8 THE COURT: Great.

9 MR. BRENNAN: But there will be some problems, maybe,
10 on Monday or Tuesday because of the fact that Dr. Wolfe
11 can't be here until Wednesday. I still have to determine
12 what the request is going to be for Mr. Wilcher. So we're
13 going to try to fit in everybody the best we can, but I
14 might have some gaps depending on --

15 THE COURT: All right. So if there gap on Tuesday, it
16 gives Dr. Wilcher another opportunity to read -- so that
17 wouldn't be the worst thing in the world if we did suspend
18 for Tuesday if we could finish whatever else you need to
19 give them on Wednesday.

20 MR. BRENNAN: I'll keep the Court updated day by day,
21 but the goal is to get everybody done. I just think might
22 be a couple of gaps in there. We have somebody from Bode
23 coming from California I think, somebody from Ring coming
24 from California. We wanted to get them here for the

1 beginning of the week so that everything's before the end
2 of our case so no one's waiting for a minor witness.

3 THE COURT: Monday I have a medical appointment at 8:30
4 that I have cannot move. Some I'll have the jury come in
5 at 10:00. attend. I should be able to be here by 10:00, so
6 factor that into your schedule as well.

7 MR. BRENNAN: Thank you.

8 THE COURT: All right. We'll see you tomorrow.

9 MR. ALESSI: Thank you, Your Honor.

10 (Court in recess at 3:43 p.m.)
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C E R T I F I C A T I O N

I, CHRISTINE D. BLANKENSHIP, NOTARY PUBLIC, DO HEREBY CERTIFY THAT THE FOREGOING IS A TRUE AND ACCURATE TRANSCRIPT FROM THE RECORD OF THE COURT PROCEEDINGS IN THE ABOVE ENTITLED MATTER.

I, CHRISTINE D. BLANKENSHIP, FURTHER CERTIFY THAT THE FOREGOING IS IN COMPLIANCE WITH THE ADMINISTRATIVE OFFICE OF THE TRIAL COURT DIRECTIVE ON TRANSCRIPT FORMAT.

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Christine D. Blankenship, May 4, 2025

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